

WEEK
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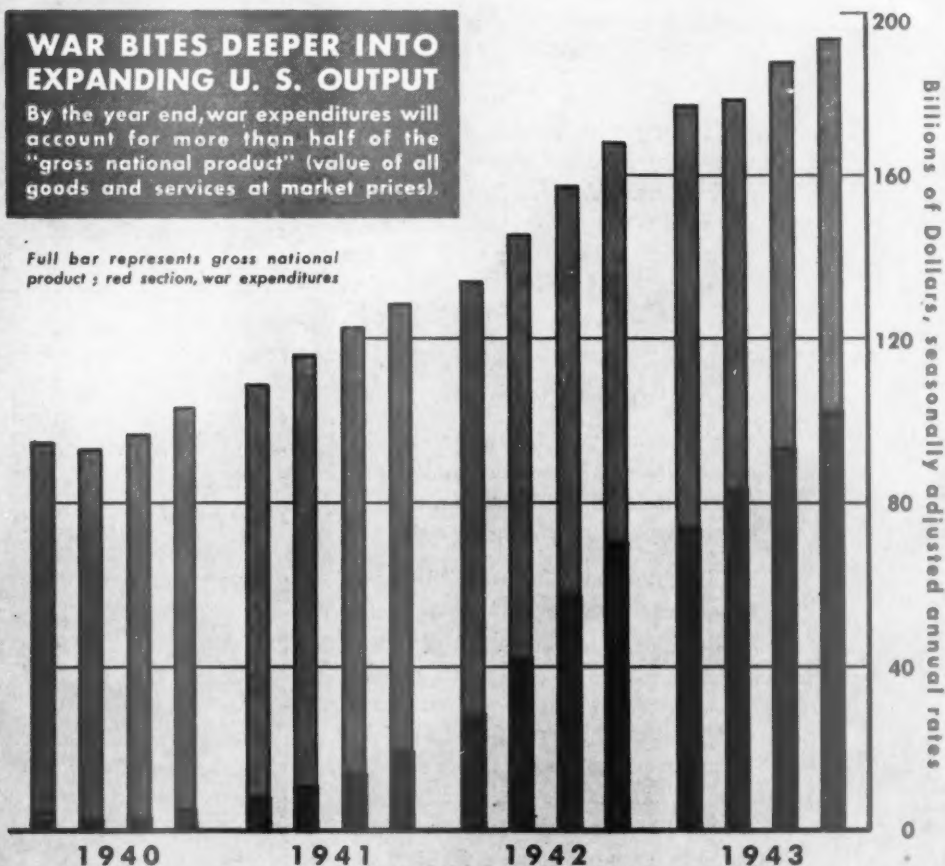
BUSINESS WEEK

START
OF WAR
1939

WAR BITES DEEPER INTO EXPANDING U. S. OUTPUT

By the year end, war expenditures will account for more than half of the "gross national product" (value of all goods and services at market prices).

Full bar represents gross national product; red section, war expenditures



BUSINESS
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This Victory Chorus America is singing was written in Berlin

"THE WAR will end in 1943" . . . "Germany will collapse" . . . "We never lost a war" . . . "We're on our way to Berlin and Tokyo" . . .

Millions of Americans who think they're loyal are spreading that German-inspired propaganda, and every push they give it pushes more American soldiers into their graves.

Germany and Japan *have won* their war—they have everything they want in Europe and Asia. Before we can win our war, we have to take all that away from them. The road from Tunisia to Europe to Berlin, from Guadalcanal to Manila to Tokyo is long, harsh, bloody. The Germans and Japs count on you and me getting tired of the cost and privations before we travel it all. So they want you to feel now that it's almost over. Then—when months or years from now—it *is not* over, we'll be discouraged and willing to quit.

They want you to feel now it is almost over, so you won't work so hard and fast, so you won't feel it's important to buy so many bonds, so you won't feel it's necessary to turn out more tanks and planes and guns and shells *quickly*. Then the tanks and planes and guns and shells won't be there; and Americans will die; and Americans back home will cry out at the casualties; and

pressure will be built up to "let them have their conquests—what is it to us?"—and the Japs and Germans will have won the war . . . and the world.

Kidding yourself is only killing your sons—and yourself. But the Germans and Japs know that Americans kid themselves. "Wishful thinking", some call it . . . or "optimism", or "confidence". Millions of Americans are kidding themselves now.

The war is not won—the winning has scarcely started. *It will not be won* as long as you or anyone thinks business as usual is important, or easy high wages, or personal power, or votes-as-usual. This nation will never reach the end of that long, bloody road until everyone—you and I and everyone else—realizes it *is* long, and resolves to sacrifice *every* personal power and profit to save American lives.



WARNER
&
SWASEY
Turret Lathes
Cleveland



At TNT-time it's served hot from a rubber tub

A typical example of B. F. Goodrich development in rubber

TNT has to be hot and liquid before it can be poured into bombs or shells. It used to be poured from aluminum tubs into rubber buckets, then into the shells. But the TNT hardened as it cooled. Some of it always crystallized and stuck to the sides and bottoms of the tubs in layers almost an inch thick. The only way to get it out was by pounding with a mallet and chisel; a hard, time-wasting job. The hammering on the aluminum tubs caused serious damage each time they were cleaned.

B. F. Goodrich had developed a

special chemical-resistant rubber for lining chemical tanks in electro-plating plants. Tests proved that a similar compound, in a layer only $\frac{1}{4}$ " thick, would resist the action of the hot TNT.

Lightweight removable linings were made from this compound and inserted in the tubs. The crystallized TNT stuck to the rubber just as it had to aluminum. But when the light lining was removed it was easy to flex the rubber and break off the hardened TNT in seconds instead of the minutes needed by the old method. Liner

and tub could be used again immediately. Then B. F. Goodrich developed linings of synthetic rubber to be ready whenever crude rubber is not available.

Today B. F. Goodrich rubber tub liners are speeding up work in bomb- and shell-loading plants from the Great Lakes to the Gulf of Mexico. If you have a tough problem in your plant, that might possibly be solved with rubber—natural or synthetic—consult *The B. F. Goodrich Company, Industrial Products Division, Akron, Ohio.*

B. F. Goodrich
RUBBER and SYNTHETIC products



Nice Work!

American Industry has a great right to be proud these days. Not only is it turning out war materials at an unprecedented pace, but its share in the over-subscription of The 2nd War Loan shows how solidly every worker stands behind the men at the fighting fronts.

This could hardly have happened in an Axis country. An Axis citizen would have given, yes, but only at the Dictator's order. In America, the *appeal* went out . . . and Americans everywhere opened their hearts and purses.

The \$13,000,000,000 Uncle Sam asked for was over-subscribed in record time, but here at **SKF**, that doesn't stop us from buying more bonds . . . from putting 10% of every pay check into the finest investment ever offered. It's a great way to see our dollars fight. It helps us turn out ball and roller bearings to speed eventual Victory.



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BUSINESS WEEK

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WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

Thumbs Down on Taxes

Taxes are pretty nearly at their ceiling. The President can send Congress all the tax recommendations he wants, but Congress has already scrapped the idea of using taxes to head off inflation. When it adopted the compromise pay-as-you-go plan, it ruled out any big new levies on individual incomes for the next two years.

Bad Timing

Most congressmen think that they have pushed taxes as high as they dare, war or no war. Even sugar-coated as compulsory savings, higher rates are out. Despite the Administration's lash, Congress refused to squeeze more than a 12.5% increase out of the switch to pay-as-you-go (the unforgiven 25% of 1942 taxes which is to be spread out over two years).

Congress isn't likely to change its mind when it settles down to write the 1944 tax bill next fall. Taxpayers will just then be realizing that, despite "forgiveness," their taxes are heavier, instead of lighter; and their representatives will have plenty of notice that they are in no mood for higher rates. And, with the first instalment of the unforgiven part of 1942 taxes falling due next spring—election year—those representatives will have a double reason for shying away from increases.

The whole tax-political situation argues that there will be no top-to-bottom overhaul of the rate structure like last year's. At most, Congress will tinker with schedules and tack on a few increases in the middle brackets—where the yield is big and political power is small.

Corporation Prospects

At this point, the legislators will be tempted to fall back on their old standby, the corporation tax. There's a chance they will boost the basic corporate rate to 45% or 50% (it's 40% now). Any such addition would be refundable after the war or be offset by exemptions for postwar reserves. Even so, it would have tough going. Congressional bellwethers are thinking more about writing relief provisions into corporate tax law than about piling on new levies.

In any case, corporate taxes don't have much to do with inflation. The deflationary tax is one that trims down consumer buying power, and corporate taxes are too remote from the consumer to do

this job. Eventually, they cut dividend payments, but their effects are indirect and haphazard.

Treasury Maneuvers

The Treasury knows what it is up against in Congress, but that won't stop it from spreading itself in its recommendations on raising \$16,000,000,000 of extra revenue. Central feature of the Treasury's program is to be the spendings tax, still its favorite project even though it was laughed down last fall. It also wants a drastic increase in income taxes on the middle brackets, steeper and broader excises—but no sales tax.

Although a good many congressmen have warned up to the spendings tax since their initial guffaw last year, they still aren't ready to pile on new levies, no matter how attractively they are packaged. Morgenthau won't expect to get more than a fraction of what he asks, but he wants Congress to take the blame for writing an inadequate tax bill. Then, if inflation gets out of hand, he can say that his program would have stopped it.

Too Late

Actually, even the most hopeful economists are working away from the belief that taxation can damp down inflation. They've decided taxpayers won't stand for another big jump in rates. Basic difficulty is that taxes are too cumbersome and inflexible to go up as fast as national income. By the time they are large enough to do any good, the inflation battle is lost.

At this stage of the game, the only thing Congress can do is tighten up taxes as much as it dares and count on direct controls—price freezing and rationing—to keep the lid on. These are the very controls that are now visibly breaking down. So the question now is no longer "when" or "if" but "how much."

Byrnes vs. Nelson

The President's assignment of authority over production matters to James F. Byrnes, Director of the Office of War Mobilization, has drastically changed the prospects for civilian production.

So long as Donald Nelson was boss, steady gains were made for the view that munitions output is reaching the saturation point, that increasing amounts of materials can be released for civilian con-

sumption and for maintenance of the civilian industrial plant. Byrnes, however, supports the Army view that, with victory in sight, now is the very time to go all-out on munitions, and to hell with the civilian.

Byrnes' advisory board is stacked against Nelson, with Harry Hopkins tending to side with Secretary Henry L. Stimson and Secretary Frank Knox.

Who Gets the Steel?

Reports circulated in WPB this week that Byrnes has already ordered Nelson to restore to the Army, Navy, and Maritime Commission a million tons of steel cut from their third-quarter requirements. Such an order would produce an immediate showdown between Nelson and Byrnes, perhaps a bustup of WPB's topside organization.

If Nelson decides not to make a prestige issue out of his jealously guarded power to allocate materials, his only out is somehow to produce a million more tons in the third quarter than was figured on when the allocations were made. The push is now on to do just that. Since February, Charles Wilson has been arguing that extra production could be achieved by pushing the furnaces harder, nearer to the danger point. The mills are now ready to give it a try. An effort will also be made to squeeze something out of hard-pressed consumer inventories.

The Break in Coal

Principal reason the coal dispute dragged out so long was that Administration agencies were working at cross-purposes. Sec. Harold L. Ickes played the straight White House line, while the National War Labor Board, anxious to preserve its prestige and future usefulness, played a lone hand, frequently to the embarrassment of the President.

At the very outset, NWLB displeased Roosevelt by referring the issue to him without consulting him first. Then, it issued its order forbidding the operators to bargain with John L. Lewis during the strike barely an hour after James F. Byrnes, as Director of Economic Stabilization, had told it to make no move without consulting him.

Ickes' Weapons

Roosevelt counted on Ickes to settle the coal dispute. The secretary knocked the disputants' heads together. He wor-

THE TOUCH OF TOMORROW IN THE PLANES OF TODAY



War Is a Skill Our Sons Must Learn

Every American soldier fights with courage and self-sacrifice. But these alone do not win wars. War also demands high technical skill because it is a struggle not only of men against men, but also of machine against machine—tanks, planes, battleships. Without training in the use of these instruments of war, soldiers today are without weapons!

One weapon in this war—the airplane—calls for more personal skill than any other. And one of the most critical phases in a pilot's training is his step-by-step transition from primary trainers to combat planes. These steps cannot be abrupt, yet time demands that they be swift. Therefore, along with the relative stability and safety required in a training plane, Fairchild

engineered into its trainers certain definite characteristics of the combat plane. Thus, they get a pilot ready for his second step while teaching him the first!

Fairchild training planes—primary trainers, bombardier crew trainers and gunnery trainers—are being used at United Nations training fields throughout the western hemisphere. They are powered by Fairchild Ranger aircraft engines. They reflect the 20 crowded years which

Fairchild engineers have devoted to "creating the plane for the purpose."

The "touch of tomorrow" in Fairchild engineering indicates courage to try new things. We shall need many new things to outwit and outfight our resourceful enemies. Fairchild has quite a number on the way—to add to those already on its record!

"ON THE BEAM"

"Each man comes to us as an individual. Somewhere in the complex pattern of his personality is a kernel of special aptitude, a nucleus of talent. He brings us this basic equipment; we teach him how to use it."

*Barton K. Yount, Commanding General
Flying Training Command AAF*



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ENGINE AND AIRPLANE CORPORATION
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Ranger Aircraft Engines Division, Farmingdale, L. I.

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audibly, when the operators were and, as to whether he was enforcing the mine safety laws strictly enough. In Lewis' presence, Ickes mused as to what he ought to do, in his capacity as operator of the mines, about checkoff. And it made the operators happier that Ickes publicized figures which showed that, in two weeks of normal operation before the second strike, the mines set a new production record of better than 12,500,000 tons a week.

Without Benefit of NWLB

Those were the tactics that got the central Pennsylvania coal operators and miners together on portal-to-portal on the eve of NWLB's scheduled public hearings. Once the united operator front broke, the board was left to pick up the pieces. Lewis, taking advantage of differences within the New England family, has grabbed the play from NWLB for the third time running.

Tighter Gas in West

Tighter rationing of gasoline in the Midwest is inevitable soon. Transportation that was not available last winter when New England was screaming "discrimination" now is available to move eastward out of the Midwest. There's a surplus there, so rationing is the consequence.

The Petroleum Administrator for War has set to push more oil east when floods washed out the "Big Inch" and disrupted rail traffic. The area of shortage has not been determined, but it may be the territory east of the Mississippi river.

This move won't necessarily mean more oil for easterners, because most of it is earmarked for off-shore military use.

Union Issue Settled

The National Labor Relations Board is still getting staunch backing from the Supreme Court. Its latest ruling to be upheld by the court involved the board's right to order the Virginia Electric & Power Co. to refund to employees dues collected under a closed-shop checkoff contract for membership in a union that NLRB had held to be company-dominated. In deciding by a 6-3 vote that NLRB was acting within its statutory powers, the court disposed of an old issue that has been in dispute for years. In twelve Circuit Court cases turning on this issue, NLRB lost eleven, won only one.

OPA Shaking Apart

Price Administrator Prentiss M. Brown has been unable to stem the disintegration of OPA. It is falling apart from internal demoralization as well as external pressure from merchants, farmers, labor, and Congress. Topside officials are quitting in sheer desperation over the futility of trying to reach decisions. Nothing can be done without a nod from "anonymous" planners with offices in the White House. Actually, OPA is leaderless.

Brown hasn't helped matters. He hasn't stood up against an inflation-minded Congress (though probably nobody could), or against the White House planners who issue broad, politically slanted edicts without regard to the mechanical necessities of a successful price control program.

Brown is sick and tired of the whole thing. He would like to quit but can't until President Roosevelt lets him.

Shortly after firing Dr. Kenneth Galbraith, Brown left for a brief vacation. Lou Maxon, who is not as close to Brown as he used to be, also has been out of town. This left a demoralized OPA under the leadership of a green hand, George J. Burke, whom Brown brought in several weeks ago as OPA general counsel.

Crisis Comes on Food

OPA's disintegration is primarily evident in the food field. A. C. Hoffman resigned as acting Assistant OPA Administrator in Charge of Food Prices only six days after he took the job over from Galbraith. John K. Westberg has resigned as head of OPA's Grain Products Section "because I was not permitted to do a fair, honest, and complete job, which means fixing equitable ceiling prices at every level of production and distribution."

Here is the root of OPA's plight on

For Workers, Veterans, and Candidates

Advocates of freedom from want via federal legislation had concrete measures for which to work this week, and New Dealers had the makings of a domestic campaign issue for 1944 as the Baldwin and the Wagner-Dingell bills went to congressional committees.

The Baldwin proposal would provide a demobilization pension averaging between \$300 and \$400 for every member of the armed forces and merchant marine at an estimated cost to the government of \$3,000,000,000. The Wagner-Dingell bill would amend the present Social Security Act to provide increased benefits, broader coverage, and new types of insurance.

There is little disposition in Congress to rush either of these measures to a vote, but both will be kept alive. The Wagner-Dingell bill, especially, will be nursed along as public reaction is gaged. If that reaction is at all favorable, the Administration is counted on to make social security a major issue in the next Congress and a key plank in its 1944 political platform. Naturally, the response will not be all spontaneous. Sponsored by the A.F.L. and C.I.O., organized ballyhoo is already under way with a White House blessing.

The Wagner-Dingell bill proposes: **Unemployment benefits payable for a uniform national minimum of**

26 weeks (to a maximum of 52 weeks if funds are available); rates are to be 50% of the first \$12-a-week wage, plus 25% of the wage between \$12 and \$56, with additions for dependents up to a maximum of one-half this allowance. Domestic and agricultural workers, seamen, and employees of nonprofit institutions, formerly excluded, will be covered. Unemployed members of the armed services will get \$12 a week plus dependents' allowances to a maximum of \$30.

Old age and survivors benefits will be increased from their present \$10-a-month minimum to a \$20 figure; maximums will go up from the current \$85 a month to \$120. Coverage is also extended.

Medical and hospital insurance is provided; temporary disability and maternity care is put under unemployment compensation, and permanent disability benefits are provided under the old age and survivors system.

Aid to needy is provided under a clause for federal grants-in-aid to states.

Financing of the expanded program would come from employer and employee contributions: 6% of earnings split equally between payrolls and pay envelopes. The self-employed, who were not formerly covered, would contribute 7% of their income up to \$3,000 a year.

PROTECTION FOR WORKERS IN INDUSTRY



Air analysis plays an important part in protecting America's war workers. By this scientific analysis, subtle dangers are removed that might otherwise cause serious damage when collected in lungs.

Willson Dust Sampling Apparatus, of the Greenburg-Smith Impinger type, determines accurately the quantity of dust in the air. Developed by the U. S. Public Health Service, its status is "official."

GOGGLES • RESPIRATORS • GAS MASKS • HELMETS

WILLSON
DOUBLE
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WASHINGTON BULLETIN (Continued)

food prices: The Administration is bending Roosevelt's hold-the-line order for labor's benefit; Congress is getting ready to bend the order for the farmer. Under Brown's policy, OPA won't stand up against either; nor will it do anything to help the food processor or distributor who is being squeezed by OPA's rigid price ceilings.

Call for Davis

OPA won't fall apart all at once. It is doing a reasonably good job in controlling the prices of most consumer durable goods, chemicals, drugs, soaps, and even clothing. Divisions handling these commodities are holding together rather well.

But the transfer of food pricing to Food Administrator Chester C. Davis is in the wind. Food rationing also may go to Davis, even though canners feel that OPA rationers are doing a reasonably adequate and sincere job.

Logic supports the shift: (1) Davis needs food pricing powers to force the nation from meat to cereals (page 13); (2) because Davis is lukewarm on subsidies, he is the only one who has a ghost of a chance to put the price-control relationship between the Administration and Congress on a working basis; and (3) the breakdown of OPA food price control will force its shift to someone who has the confidence of the public, the farmer, and the industry.

But No Answer Yet

Davis knows he could do a better over-all food job if he had price control under his wing, but he isn't openly pushing the idea because: (1) He does not like the game of bureaucratic grabbing; (2) he knows that the heat now being turned on OPA will be transferred to his agency along with price control; and (3) he thinks he will eventually get price control anyhow.

Two factors may save food price control for OPA for several more months: Brown has been appeasing urban congressmen and senators by making patronage appointments in OPA ranks; and former President Hoover's advocacy of unifying all food control powers in one head may force Roosevelt to defy the logic of the situation for political reasons.

Prisoners for Jobs

Labor of prisoners of war will be available to private employers as well as to public agencies—but only in areas where the War Manpower Commission finds a scarcity of labor.

Employers will pay prevailing wages—to the government—and are exempt from any expense (such as guards) that they would not have to meet with in handling free labor. The government pays each prisoner 80¢ a day—70¢ more than he gets for idleness—and pockets the difference.

There already are 36,000 prisoners in the country to draw from, with even more expected before long to bring the total to 200,000. Interested employers should get in touch with the commanding officer of the nearest Army Service Command.

Postwar Army Problem

While postwar planners worry about the problem of absorbing soldiers back into civilian life—and the White House already has a small staff charting Selective Service program in reverse—the Army is worrying about the little mentioned problem of holding soldiers in necessary postwar garrison jobs and incidentally, giving the labor market time to absorb demobilization.

Cook's Tour Plan

One scheme for keeping postwar soldiers happy that may sound fantastic at first is getting very serious consideration. It rests on the theory that soldiers get homesick only when the novelty of a new place wears off. Therefore, the plan envisions a series of postwar Army Cook's Tours on a tremendous scale—a continuous garrison movement that will shift troops around at frequent intervals. For example, divisions that have been stationed in North Africa would go to Europe, European policing units would be sent to Iran, East Asia garrisons to the Canal Zone, etc.

Cigarettes Digested

"Let's See You Try to Make an Ad Out of This" will not be the title of the article on cigarette advertising scheduled for the July issue of the Reader's Digest. It's just the suggestion for a suitable title heard at the Federal Trade Commission, whose records on the alleged extravagances of cigarette companies have contributed heavily to the forthcoming article. FTC awaits publication with memories of past Reader's Digest excursions into the smoke field, including the famous report on cigarette tests which Old Gold turned to such ingenious advertising uses (BW-Jul.11'42,p58).

—Business Week
Washington Bureau

FIGURES OF THE WEEK

	Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below)	*203.0	206.7	204.4	190.3	181.6
PRODUCTION					
Steel Ingot Operations (% of capacity)	97.5	98.4	99.4	98.6	99.3
Production of Automobiles and Trucks	16,215	16,775	18,405	19,935	21,975
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	\$12,474	\$12,845	\$12,762	\$15,409	\$44,964
Electric Power Output (million kilowatt-hours)	3,926	3,990	3,904	3,884	3,372
Crude Oil (daily average, 1,000 bbls.)	3,933	3,970	4,021	3,834	3,602
Bituminous Coal (daily average, 1,000 tons)	1,967	†1,936	1,595	2,149	2,086
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	80	80	80	80	79
All Other Carloadings (daily average, 1,000 cars)	62	61	51	55	62
Money in Circulation (Wednesday series, millions)	\$17,196	\$16,902	\$16,683	\$14,848	\$12,141
Department Store Sales (change from same week of preceding year)	+42%	†+21%	-5%	-1%	-12%
Business Failures (Dun & Bradstreet, number)	56	64	64	148	191
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100)	245.4	245.7	246.0	232.7	228.3
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	159.7	159.8	159.9	155.3	152.3
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	208.4	207.9	207.7	188.3	181.3
Finished Steel Composite (Steel, ton)	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
Scrap Steel Composite (Iron Age, ton)	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.)	12.00¢	12.00¢	12.00¢	12.00¢	12.00¢
Wheat (No. 2, hard winter, Kansas City, bu.)	\$1.38	\$1.38	\$1.39	\$1.26	\$1.10
Sugar (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.)	21.14¢	21.26¢	21.09¢	19.51¢	18.77¢
Wool Tops (New York, lb.)	\$1.340	\$1.340	\$1.320	\$1.197	\$1.215
Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
90 Stocks, Price Index (Standard & Poor's Corp.)	96.7	96.2	94.6	74.2	66.6
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	3.89%	3.89%	3.92%	4.29%	4.32%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's)	2.73%	2.74%	2.75%	2.81%	2.86%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years)	2.29%	2.29%	2.31%	2.36%	2.32%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate)	‡-4%	‡-4%	‡-4%	‡-4%	‡%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks	31,386	31,185	29,528	28,852	25,483
Total Loans and Investments, reporting member banks	47,182	47,068	46,108	38,387	31,679
Commercial and Agricultural Loans, reporting member banks	5,662	5,707	5,808	6,440	6,924
Securities Loans, reporting member banks	1,537	1,662	2,203	1,089	931
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks	34,317	34,093	32,331	24,808	17,226
Other Securities Held, reporting member banks	3,077	3,074	3,103	3,284	3,548
Excess Reserves, all member banks (Wednesday series)	1,630	1,500	2,130	2,504	2,783
Total Federal Reserve Credit Outstanding (Wednesday series)	6,535	6,493	6,850	5,460	2,723

* Preliminary, week ended June 5th.

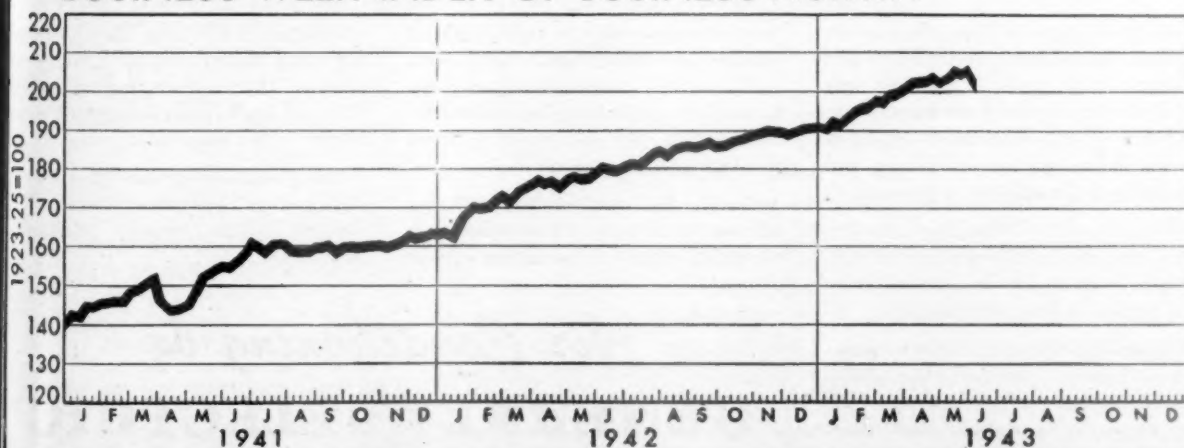
† Revised.

‡ Series revised, now includes open market paper.

§ Ceiling fixed by government.

§ Data for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY





Cave-of-the-Winds in Miami

Inside this unique building, the engines of Pan American Clippers are put through their paces. Propellers roar with the thunder of 4000 horsepower—creating super-hurricanes as air is pulled down one set of stacks and pushed out through the other set.

Outside, there's hardly a sound—for in each stack a honeycombed unit of cells soaks up the resonance, bit by bit, until it is finally dissipated.

Naturally, this completely windowless test house had to be air conditioned—to remove heat generated by the engines, to provide controlled

testing temperatures, to make working conditions bearable for the engineers. As in so many other exacting applications of air conditioning and industrial refrigeration, the equipment selected was General Electric.

Today, G-E air conditioning and refrigeration engineers are devoting all their talents to problems of war

production and testing. They are learning much that will lead to better, more economical manufacturing methods—to healthier, happier living—when we return to the pursuits of peace.

Air Conditioning and Commercial Refrigeration Department, Division 437, General Electric Company, Bloomfield, New Jersey.

Air Conditioning by
GENERAL  ELECTRIC

THE OUTLOOK

The Squeeze Gets Tighter

Our over-all production is nearing its peak, but war's take will continue to go up; the difference will come out of civilians' share, and the national diet will be starchier.

Longer-term problems replaced short-term ones in the outlook news this week. Though the drop in Business Week's Index from 206.7 to 203.0—result of last week's coal strike—was a not unimportant footnote, the headlines did turn from coal to the prospects for our coming invasion moves. In the balance hangs the outlook for late 1943 and for 1944—brought to the fore this week by President Roosevelt's announcement of a forthcoming major tax program, Herbert Hoover's proposal for a revised attack upon the food problem, and Col. Lewis B. Saunders' suggestion of a 1,500,000-man increase in the 10,800,000-man goal for the armed forces.

Over-All Output Nears Top

A panoramic setting for all such questions is the volume of U. S. output of goods and services and their distribution between the war effort and the civilian economy (cover chart). First, the curve of our gross national product is flattening out. Even the 8% gain in total dollar value projected between the second and fourth quarters of this year will come down to less than a 5% rise in actual physical output; some advance in prices, inevitable in a period of rising costs, is assumed in estimating the dollar aggregate. Indeed, actual physical output might even decline slightly between the third and fourth quarters.

Bigger Totals for War

Meanwhile, the proportion going to war will steadily rise, and that remaining to the civilian economy will contract—as it has done ever since late 1941. The civilian economy divides into two parts: (1) gross capital formation through plant building and inventory accumulation, and (2) consumer goods and services (including governmental). Capital formation dropped from a 20-billion-dollar annual rate in late 1941 to zero now; goods and services advanced from a 90-billion-dollar rate in late 1941 to an over-100-billion peak last quarter. But the goods-and-services aggregate will fall back by the year-end to 90 billions—which, taking account of price advances, means at least a 20% drop in physical terms from late 1941 to late 1943.

With income payments rising, this spells a widening inflation gap, pressure

on price controls, black markets, and so a threatened resumption of the price-wage spiral. Even a 16 billion tax-and-savings program will leave a year from now as much hot money as exists now (BW—May 15 '43, p108). No wonder the President wants faster fiscal action.

The Manpower Question

Peculiar significance attaches to 1944 goals for the armed forces. Nonfarm employment has been pared by 1.7 million persons between December and May; though work-weeks are lengthening, we are close to the peak output we can expect from our manpower. Additions to the armed forces in 1944, on top of replacements for casualties, would substantially reduce our physical gross product.

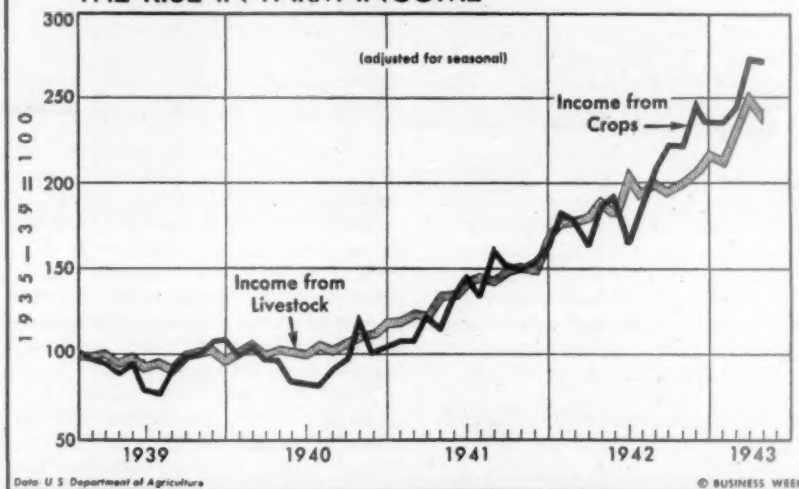
That would again hit civilians—especially in the bread-basket. A basic change will have to be made in food policy anyway. The Dept. of Agriculture confirms Business Week's forecast (BW—May 15 '43, p13) that livestock feeding soon will have to be restricted. With grain stocks being drained, there will be 10% less feed for the 1943-1944 season than for 1942-1943, even if 1943 crops get normal weather.

This means a cut in meat-dairy-poultry output. But in 1944, the armed forces and lend-lease will take more than this year's 25% of our total food. Civilians would have to make up for their reduced consumption of livestock products out of increased quantities of potatoes, peas, beans, and cereal products in general. These we won't have, unless we place further restriction upon feed grains and put emphasis on food crops (BW—Jun. 5 '43, p14).

Less Protein in Diet

More calorie value can be got from eating crops directly than from consuming products of livestock fed on crops. And, beyond meeting a certain fat-pro-

IN THE OUTLOOK:
THE RISE IN FARM INCOME



Price controllers present charts like this when opposing further farm price advances. They point out that income payments to all groups in the nation have risen to an index of but 207, while farmers' net income has advanced even more sharply than their cash receipts because costs have been relatively stable. In any case, barring catastrophic weather damage to agriculture, both the crop—and livestock—income curves will go

higher. Once livestock feeding is brought under limitations towards the year-end, however, income from pork, beef, milk, eggs, etc., will tend to stabilize. Contrariwise, returns from wheat, cotton, truck, and other crops may flatten this year if output dips below 1942 and price lines are held, but will expand again in 1944 as emphasis turns to direct food acreage, with accompanying price or subsidy incentives.



Dr. Ramon S. Castillo, deposed president of Argentina, was the conservative running-mate and successor to the late President Roberto Marcelino Ortiz. Formerly a prominent jurist, Castillo, who is over 70, has retired to seclusion after a week-end cruise to Uruguay on a gunboat accompanied by most of his cabinet.

tein minimum, the 1944 food job will be to keep stomachs full—with starches.

Both the expansion and the shift in crop-growing will require more farm machinery—particularly as more manpower may yet be lost to agriculture. So, WPB this week upped third-quarter allocations for farm equipment to 300,000 tons of carbon steel, with other materials in proportion—a rate sufficient to meet the machinery production program asked for by the War Food Administration.

This action contrasts with the cut in allotments for railroad equipment and for consumer "hard goods," necessitated by the inadequacy of third-quarter steel supplies relative to military demand. Apparently, direct military needs are far from fulfilled; but materials will be diverted to "indirect war" items if the need for them is found to be sufficiently extreme.

Cutback on Machinery

In any case, Donald Nelson's April munitions report provides evidence of the cutbacks in ordnance and new-plant machinery. Beginning in May, deliveries of the latter were scheduled to decline more than 60% by the year-end. And, whereas the April production rate was higher than the average for the preceding six months by 22% for all munitions, output was up only 12% on ordnance. Chief emphasis, of course, is on more ships and planes. Incidentally, total munitions production was up 7% over March—"more than can be expected as an average."

Argentine Revolt

To the peasant, it's just another revolution, but behind it was landowners' ire at exclusion from global food planning.

In Chaco Central, Santa Cruz, and Tierra del Fuego, Argentine peons are shrugging their shoulders and saying that Buenos Aires has had another revolution. It had happened before and would happen again.

Last week, there were two new governments in three days. Perhaps there will be still another. It does not matter to most Argentines, for government is primarily the business of a few politically astute and wealthy industrialists, estancieros, cultured families, and the German-trained military clique. The same, in justice, may be said of most other Latin-American countries.

• **Changing Horses**—Dr. Ramon S. Castillo was changing horses when the blow struck. Plagued by warborn inflationary tendencies in the economy, surrounded by Axis troublemakers, and distrusted by other American republics and United Nations leaders, the Castillo government was on shaky ground.

During May, the representatives of 44 nations—excluding Argentina, the world's foremost food exporter—met at Hot Springs, Va., to discuss postwar food controls. During those same weeks, the great landowners—agriculturalists and livestock raisers—beat a path to President Castillo's door. His policy of "prudent neutrality" was obviously endangering the future welfare of his backers, and a shift of policy to support of the United Nations was in order.

• **Too Late**—But the attempt to shift came too late; War Minister Pedro Pablo Ramirez, accused of plotting the overthrow of the Castillo government, was ousted from office; the march on Buenos Aires occurred two days later.

Today Argentina has a military government. After Gen. Arturo Rawson attempted unsuccessfully to form a cabinet, Gen. Ramirez assumed the presidency with an all-military cabinet of conservative but nonpolitical henchmen. The Concordancia—a coalition of Conservadores and the anti-Personalistas—is not officially represented in the new cabinet, but its rightist policies may be reflected in the administration of the military men.

• **Radicals in Background**—The Radical Party, largest single political unit in Argentine politics, representing the large and vocal middle class of the cities, is still in the background, perhaps awaiting a false move by Ramirez.

For two years, the Argentines have watched jealously as U. S. wealth

poured into Brazil. The revolution, perhaps unrealistically, may have had as a primary motive the acquisition of military and lend-lease aid from the U. S. • **Roundup Coming**—An unconditional break with the Axis, and the rounding up of Axis agents who fled to Argentina during recent years, must follow quickly. This break cannot come—as Gen. Ramirez indicated by announcing a policy of neutrality "for the present"—until Argentine ships have safely returned to ports to receive protective armament—which may be 10 or 15 days hence.

The United States—traditional guardian of hemisphere security—must judge the merits of the new government, but it is likely that British and U. S. recognition will be simultaneous for two reasons: (1) On the questionable procedure of recognizing a government established by revolution, the United Nations must present a united front; (2) Britain has always been influential in Argentine politics and commercial and economic policy in the interest of maintaining complementary economic relations between Argentina and the United Kingdom.



In the wake of Argentina's almost bloodless revolution led by Arturo Rawson (left) and Pedro Pablo Ramirez (right), two governments were formed within 48 hours. After an abortive attempt to constitute a cabinet, Gen. Rawson stepped down, turned the presidency over to Gen. Ramirez, who selected an all-military cabinet to back his regime.

Congress on Strike

Heretofore thwarted in effective opposition to Administration policies, Congress now stands to score heavily in blocking farm subsidies, forcing new price control agency.

Some five months ago, the 78th Congress came to Washington determined to curb federal bureaucracy and recapture its place in the government triangle by restoring to itself legislative powers which it had let slip away. The result has been a constant tussle with the executive branch. Unable to accomplish much by direct action because of the Administration's agility, Congress has tried to tie President Roosevelt's hands by limiting the funds that are needed to carry out the policies of the Admin-

istration to which it has objections. **• Watching Election Prospects**—The 1944 Presidential and congressional elections are already exerting marked influence on Congress' actions. Republican strategy on such important pieces of legislation as the pay-as-you-go tax bill and the Connally-Smith antistrike measure was dictated by possible vote-getting next year. Democratic leaders, while confident that Roosevelt will be reelected, are fearful that the Republicans will organize the House. Individ-

ual members, gravely concerned over their own jobs because of public unrest, are frequently acting out of sheer selfish interest. Anti-fourth term Democrats make the job of Democratic leaders in both the Senate and the House difficult.

In the tug-of-war for power, Congress has done little better thus far than hold its own, but now it is on the verge of its greatest victory. The fight against the Administration's big food subsidy program, led by the farm bloc but aided by many others, is rolling steadily toward victory.

• Ban on Subsidy Funds—Though the President and War Mobilization Director James F. Byrnes are going ahead with the program, regardless of congressional opposition, the stage is being set for one of the most unusual legislative acts in history. Faced by the fact that it cannot legislate on the subsidy ques-



DEFENSE IN DEPTH

Realizing that production sacrificed to battling floods would be minor compared with output lost to inundation, Caterpillar Tractor kept the Illinois River out of its factory and a good

part of Peoria recently (BW—May 29 '43, p16). The firm's 13,000 employees were turned from war work to flood duty to fight the water in twelve-hour shifts on three defense lines. A railroad embankment and a levee (above) were the first line. On the second, all

plant openings were sandbagged (below left), while records, desks, and machines were piled high on the third—inside (below right). Employees placed 1,500,000 sandbags, consumed 154,000 sandwiches and 102,000 cups of coffee during the emergency.



What Congress Has Done on Major Legislation

If the usefulness of a Congress could be measured by the volume of important legislation on which it acts, the present Congress wouldn't rank very high. Here is the scoreboard of significant action to date:

Tax collection at source—passed and sent to the White House.

Reciprocal trade extension—passed and signed.

Lend-lease extension—passed and signed.

Creation of independent civilian supply agency (Maloney bill)—passed Senate, pigeonholed in House committee.

Manpower draft (Austin-Wadsworth bill)—House committee has completed hearings.

Draft-deferment of fathers—passed House, pigeonholed in Senate.

Seizure of struck plants and penalties for strikes (Connally bill)—passed both houses in different versions; a conference committee has agreed on a compromise bill, cinching passage.

Subjecting unions to antiracketeering act (Hobbs bill)—passed House, waiting Senate action.

Regulating commissions of war contract brokers (Vinson bill)—passed House, approved by Senate committee.

Extension of Commodity Credit Corp.—approved by committees of both houses.

Raising parity price of farm crops (Pace bill)—passed House, waiting Senate action.

Forbidding inclusion of subsidies in farm price ceilings (Bankhead bill)—passed but vetoed; revised version now before Senate and House.

tion affirmatively, Congress is moving in through the back door. Prohibitions against continuation of the subsidy plan will be voted not once, but several times. Convinced by past experience that a mere disavowal of the subsidy program is insufficient to halt Administration plans, Congress will have to plug every loophole. Any funds that the Administration might use for the plan will be restricted.

Only a miracle can save the subsidy program, in the opinion of qualified members of Congress. They concede if anyone can perform that miracle, it is the President. Whether Roosevelt can repeat his masterly job of outmaneuvering the farm bloc by playing labor against the farmer remains to be seen. It appears his only chance of saving the subsidy rollback plan.

● **OPA—the Pet Hate**—Congress has also finally found the range in its attack upon OPA, major bureaucratic target for the past year (BW—Jun. 5'43, p17), but the President may beat the slowly moving legislative branch to the draw. First chance Congress gets to vote, it will take all OPA powers over food away from Administrator Prentiss M. Brown and hand them to War Food Administrator Chester C. Davis.

This would be the start of the dismembering of the agency, which is unquestionably the pet hate of Congress. It is a good bet, however, that Roosevelt will have the target out of range again before voting day comes. OPA, at least in name, will be ended by executive order. A new agency, probably under the Office of War Mobilization, will be created.

Congress is no longer fooled by this strategy but is frustrated. The President will ask that OPA's successor be

given a chance to show what it can do. The public will agree. Congress will have to give in, and the Administration will have won another skirmish in its delaying war. It has worked a dozen times before, and astute members of Congress see no reason why it will not work again, despite their protests.

● **Through the Back Door**—In its somewhat floundering efforts to regain legislative powers transferred to the President during the early days of the New Deal and at the outset of the war, Congress has developed a technique of "back-door" legislating which must make Uncle Joe Cannon turn over in his grave.

The House Appropriations Committee, once considered considerably inferior in power and influence to either the Rules or the Ways and Means Committee, is now the top committee in Congress. This is so because control of the purse strings affords Congress virtually the only power it has to cut the powers of the executive branch or force the Administration to shift its policy lines. The President has been given so much unlimited power that Congress has found no other successful way to block him.

Memberships on the Appropriations Committee are so much sought after in the House that its size has risen to 45 members, as contrasted with only 25 on such an important committee as Ways and Means.

● **Needling the Administration**—Even though the Appropriations Committee, together with its companion group in the Senate, has been working steadily since last December, never in the history of Congress have so many regular appropriation measures remained unenacted with only three weeks left before the new fiscal year begins. This is

not because of any fighting over the size of the appropriations—over the amounts are no longer the big issue—because of concern about specific items which are scanned closely with a view to blocking objectionable Administration activities by curtailing or, in some instances, removing them completely. Outright legislation, barred by House rules if objection is made, is written into each bill. It was estimated that at least 50% of the Agriculture Dept. bill, as reported by the committee, was directed legislation.

● **Many Fights, Some Deals**—Despite fights between the two houses—the Senate has carried a heavy burden in straightening out sloppy House-approved legislation—there have been several outstanding examples of give-and-take. For months, it appeared that the House would not be able to pass a pay-as-you-go tax bill. Finally, under heavy pressure from back home, it approved a bill which the majority did not want. When the Senate passed the Ruml plan, there were only a half dozen House votes standing in the way of its final adoption. But a compromise which represented real concessions on both sides was reached.

Outstanding example of the importance of the two-body legislature was the striking from the agriculture appropriations bill by the House of all funds for the controversial Farm Security Administration. The House wanted the FSA killed, but if its bill had become law, there would have been no provision left for the collection and handling of some \$450,000,000 of FSA loans that are outstanding. FSA probably will survive in crippled form.

● **How Other Bills Fare**—Like its predecessor, there is no disposition on the part of the 78th Congress to interfere with the military prosecution of the war. Record-breaking appropriations for the Army and Navy are sped through with no delay.

Despite some Republican opposition, extension of the reciprocal trade agreements act, considered by the Administration as highly essential both to the war and to postwar plans, moved through without a hitch. Extension of the once-controversial lend-lease act hardly caused a ripple.

Another big tax bill (page 5) faces Congress, and members hate to think about it. They realize that it is going to cut where it really hurts, and they are in no hurry to get at it, probably won't until the weather cools off next fall, despite the President's insistence that action be taken at once.

A longer cooling-off period is in prospect for the Administration's cradle-to-the-grave social security program (page 7). Congress is in no mood to touch it now. There are some hopes that action can be secured next spring, but leaders are far from optimistic.

Diets to Suffer?

Feed shortage threatens to force cut in meat supplies; livestock may be put on short rations, go to market thinner.

A nation-wide campaign to shift emphasis in the national diet from animal to plant proteins will be War Food Administrator Chester Davis' first step in an effort to meet the nation's feed and grain crisis (BW—Jun. 5 '43, p14). With President Roosevelt's blessing, Davis will use the Office of War Information to mobilize the nation's advertising, radio, and newspaper industries to increase the production and use of food products made from wheat, corn, soybeans, peanuts, dry beans and peas, and Irish and sweet potatoes.

• **Shift in Emphasis**—At the same time, the nation will be asked to reduce or level off its production and use of meats, poultry, and other animal proteins which use scarce feeds. Fluid milk and cheese may become the exceptions in the general campaign of cutting down on production and use of animal proteins.

Shipments to lend-lease countries, which primarily have been made up of animal protein products, may be shifted to greater emphasis on the plant proteins. Without question, Herbert Lehman's Office of Foreign Relief & Rehabilitation Operations will have to make its plans for relief in occupied countries primarily on the basis of plant protein foods.

• **Rationing Customers**—Seriousness of the feed crisis is indicated by the reported plan of the Grange League Federation to cut the amount of feed it will sell to each of its regular customers by 37½% and to refuse to accept any new customers. G.L.F. is a farmer-owned cooperative whose main business is selling feed in the dairy and poultry regions of New York, Pennsylvania, and New Jersey.

In government quarters, preliminary discussions have gone as far as the possibility of allocating or rationing feeds. Rationing has been necessary in the British Isles for over two years.

• **Objective of Regulation**—The goal of any government system of controlling feeds and grains would be to channel supplies first to dairy cows whose output is sold as fluid milk. Next would come feed for dairy cows whose output is sold as cream to the creamery and skim milk to the drying plant. Farmers who hold back their skim milk for poultry or hog feeding would be way down the list.

Chickens kept to produce eggs would be high on any feed priority list, but poultry for sale as meat would be lower.

Government feed control might be aimed at keeping hogs down to 225 pounds or less; feeding of grains to beef cattle to put on those extra pounds that make choice steaks may be banned.

• **Problem of Control**—However, institution of strict government controls over the use of feed supplies is regarded in Washington as the last resort. Even though control has worked in England, War Food Administration officials believe that it would be very difficult in the U. S. where many farmers grow their own feed grains.

As a practical matter, there is one type of feed—high protein—which might be subject to government control. Most of this is milled and moves through distribution channels before it reaches the farm. The control thus could be placed on high proteins through the feed dealers—but livestock raisers who buy feed would be at a disadvantage with those who raise their own.

• **Price Policy at Fault?**—Key man in the Grange League Federation, J. A. McConnell, who also is chairman of the government advisory Feed Industry Council, believes that price is the key to all the feed trouble. He says that expansion in heavy grain consuming animal units has outrun the country's capacity to produce feed for them.

He attributes this to the national policy of price relationship which was designed to expand the livestock popu-

lation to assure lend-lease protein supplies along with a low-cost peacetime diet for civilians.

• **Committee Helps Out**—Since Food Administrator Davis must meet the situation without price control powers, he is working on a number of plans in addition to the publicity campaign to shift the U. S. diet from animal to plant proteins. To assist the Food Administration in all its grain planning, there is an informal advisory group representing all the major users of grains:

Douglas Stewart of Quaker Oats, representing cereals; A. E. Staley of A. E. Staley Manufacturing Co., representing soybean products; George Moffett of Corn Products Refining Co., representing wet corn grinders; McConnell, representing feed distributors; and P. W. Pillsbury of Pillsbury Flour Mills, representing the flour milling industry.

• **Imports Aren't Arriving**—Although it has thus far been of little help, Canadian feed might relieve the U. S. situation to a limited extent. Bottleneck here is transportation. A deal was made some weeks ago for seven million bushels of Canadian wheat for feeding purposes, but the feed hasn't yet arrived in the U. S. Government men hope to get 100 million bushels of feed from Canada during the next twelve months but say that they could use four times that amount.



ODT'S MILK MUDDLE

New York and Pittsburgh milkmen struck last week in protest against a government order restricting retail dairy deliveries. The Office of Defense Transportation order, allowing only alternate day service, is aimed at conserving fuel in the eastern gasoline

shortage area. But even the hay burner equipment (above) is restricted—to prevent unfair competition. In the New York area, some 14,000 drivers idled one day, protesting against double loads. On orders of the National War Labor Board, the drivers returned to work. This week, they accepted a staggered delivery plan.

Balk Lake Haul

Drivers stymie scheme to ferry trailers and save tires and gasoline when ODT denies them Detroit-Cleveland highway.

Daily trailer-truck ferry service between Cleveland and Detroit was inaugurated over Lake Erie this week with the joint blessing of the Office of Defense Transportation and the Interstate Commerce Commission, which saw in the venture a potential saving of 336,000 tire-miles a day.

• **But They Were Empty**—The only jarring note when the steamers pulled out of the terminal cities on their maiden runs last Monday was that they were empty. And members of the A.F.L. Teamsters Union who refused to load their trailers on the boats did not say when—or whether—they would yield.

Both vessels, for two days, continued to negotiate their scheduled daily round trips. Common and contract carrier service between the two cities was at a standstill, for ODT Director Joseph B. Eastman last week ordered truckers who ply that route with trailers and semitrailers to use the new waterway service of the Truckers Steamship Co. unless authorized by ODT to use the highways. Private carriers were not affected.

• **Postponed Daily**—Operation of the new ship line was to have been begun

May 7 but was held up when the union objected and its members refused to load the boats. Day-by-day postponements while the matter was argued before ODT in Washington culminated in the getting orders from Eastman and the ICC.

The union has taken the stand that trucking facilities in the Detroit area are not yet being utilized fully, and that shipment of common carrier package trucks by boat would work to the detriment of members. James Hoffa, a business agent, proposed that the boat travel be limited to steel-carrying vehicles or that, if package trailers are to be shipped by lake, displaced drivers should be paid higher scales on new runs than prevail on the Cleveland-Detroit route.

• **Gas and Tire Savings**—ODT enthusiastically indorsed the ferry scheme because of the saving of gasoline and tires involved in elimination of a heavily traveled 168-mi. highway run. That enthusiasm was manifested last winter and spring when shippers and trucking firms worked out the idea with ODT and ICC. The idea is still considered good, despite the headaches which have developed, for each boat would make one round trip daily between the lake ports carrying 50 heavy semitrailers, thus effecting a saving of 33,600 truck-trailer-miles, or about 336,000 tire-miles, per day.

Men working the Detroit-Cleveland run on trucks have been paid 3.4¢ a mile. Hoffa proposed that men taken from the run receive \$7.20 for their first 180 miles and 3.4¢ each additional mile. Objectors to this proposal termed it a

disguised pay raise and said there were few regular drivers on the run anyway. • **Would Lose Money**—As to the Hoffa proposal, that boat travel be limited to steel-carrying trucks, they pointed out that most such vehicles were privately owned, and that their operators would lose money if forced to hire facilities at the terminal points to shift the semitrailers on and off boats.

Sawmills Ask Aid

Industry wants Byrnes to break bottlenecks caused by the many and conflicting orders and complex manpower problem.

The Lumber & Timber Products War Committee, representing 33 groups of the industry, a few days ago sent an urgent telegram to czar of czars James F. Byrnes asking that he set up within his Office of War Mobilization a vertical appraisal agency to coordinate problems of policy, production, supply, procurement, distribution, and use of wood. Although it is one of the 37 essential industries, lumber feels like an orphan with five stepfathers.

• **Industry's Viewpoint**—Its story is one of those most often heard in Washington—a tale of confusion in authority which a lumberman summarized by saying: "We have five spokes to our wheel but there is no rim to make the wheel



WAR WORKERS' CITY

On Columbia River swamp land near Portland, Ore., the nation's newest, most unusual city stands 95% completed; 50% populated. It is Vanport, Ore., where everyone works for shipbuilder Henry Kaiser and pays rent to Uncle Sam. Vanport's full population of 40,000 will give it claim to two distinctions: the nation's largest war housing project, Oregon's second largest city. Its 718 apartment buildings (left) are divided into units of fours (below left) which surround central heating and laundry plants. The new city's facilities include a recreation hall (below right), stores, schools, nurseries, and hospitals.



...were
...Hoffa
...ed to
...d out
...ately
...ould
...ies at
...semi-

...oll." He was referring to OPA whose
...ices and rigmarole reports have caused
...any small mills to close, to the War
...anpower Commission which hasn't
...plied needed manpower, to WPB,
...the National War Labor Board, and the
...Dept. of Agriculture with their contra-
...ictory orders.

The gloom in the lumber industry
...asn't lightened any by an optimistic
...WPB output figure for the first quarter,
...ased on Forest Service estimates of pro-
...uction, of 7,141,109,000 b. ft. Military
...nd essential civilian demands for 1943
...dd up to 32,000,000,000 b. ft. More-
...ver, the quarterly report of the five-man
...umber survey committee to the Dept.
...f Commerce says actual first quarter
...roduction was 6,269,000,000 b. ft.

Outlook Isn't Happy—The discrepancy
...f almost a billion feet is explained by
...he fact that WPB's figures include
...arm-sawmill production which rarely
...gets into commercial trade. All groups
...agree that a critical time lies ahead.

Manpower shortages are severe every-
...where, but worst in the Southern pine
...states which produce about one-third of
...U. S. lumber—boards that are in biggest
...demand now for boxes and crates (35%)
...as well as hardwoods needed for truck
...bodies. Building of cantonments is about
...10% of what it was last year, but that
...hasn't offset the demand for boxes.

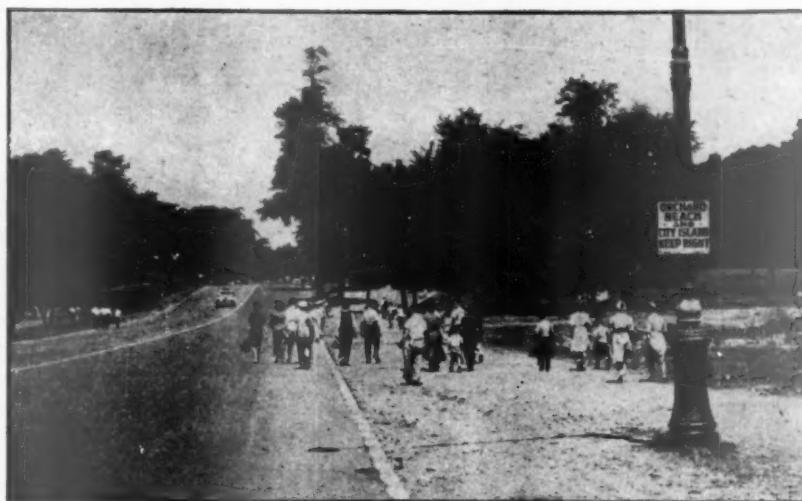
Average hourly wage in the lumber in-
...dustry in the South is 40¢ which is no at-
...traction to a common laborer who can
...make twice that in a war plant. But
...higher pay wouldn't necessarily add to
...the labor supply, and the bigger wages
...would heighten the inflation push.

Selective Service's Toll—Draft defer-
...ments are hard to get, according to
...southern operators who assert that
...WMC has been reluctant to make them
...easier by clear definitions to local draft
...boards. Much lumber in the South
...comes from small mills whose men work
...much of each week in agriculture. These
...farmer-loggers are afraid of losing their
...agricultural deferments if they work in
...woods or mills.

The South has about 10,000 mills, 280
...of which (representing 40% of southern
...production) form the Southern Pine
...Assn. This group, which normally hires
...162,000 men, reports a shortage of
...43,000. The association estimates that
...about 1,000 mills that could account for
...20% of southern production are now
...closed.

This year's lumber requirements are
...broken down by WPB into 11,000,000,-
...000 b. ft. for boxes and crates (needed
...to send ammunition, planes, food, etc.,
...overseas as well as for packaging domes-
...tic vegetables and fruits), 9,000,000,000
...b. ft. for civilian construction, 8,000,-
...000,000 b. ft. for direct military needs,
...and 4,000,000,000 b. ft. for factory uses.

Backlog Dwindles—Mill stocks were
...3,777,000,000 b. ft. at the end of the
...first quarter, 15% below those at the



PLEASURE PLODDERS

Unless the gasoline shortage eases, it
...looks like a very tough season for East
...Coast resorts. Pleasure driving is defi-
...nitely out until further notice, and
...resort bus service, with a recent fuel
...conservation cut piled atop mileage

percentages based on last winter's
...slack season, is at the vanishing point.
...This became evident to panting ur-
...banites who sought relief from last
...week's hot spell in the Northeast.
...Thousands of New Yorkers hoofed the
...three miles from a subway's end to
...Orchard Beach—and back again.

end of 1942, and down 40% from Apr.
...1, 1942. Exports from Canada are em-
...bargoed, partly to safeguard Britain's
...supply.

Lumbermen who fear that many U. S.
...sawmills will have to shut down next
...winter when snow makes mountain log-
...ging impossible are urging that U. S. log-
...gers be allowed to chop in British Co-
...lumbia where forests are not at such
...high and snowy altitudes. But U. S. pay
...scales are higher than those in the Do-
...minion, and fear of dissatisfaction among
...Canadian laborers impedes action.

The 1942 Scoreboard—Biggest U. S.
...lumber production comes in the second
...and third quarters of normal years. Re-
...vised Bureau of Census totals for 1942
...were: first quarter, 7,360,000,000 b. ft.;
...second quarter, 8,601,000,000; third
...quarter, 8,967,000,000; fourth quarter,
...7,362,000,000; the year, 32,290,000,000.

The Forest Service has from 2,500 to
...3,000 technicians who give advice and
...help, but Congress has shown indica-
...tions of slashing from \$3,000,000 to \$1,-
...000,000 the funds sought to carry on,
...with WPB, a cooperative program to
...stimulate log and lumber production
...(BW—Mar. 6 '43, p20).

Multitude of Uses—War's needs for
...wood include such vital items as all-
...wood aircraft or gliders (the British Mos-
...quito bomber is all wood), Army pon-
...toon bridges, Navy and Maritime ship
...decking, aircraft plywood, PT boats, sub-
...chasers, lifeboats, tugs, floating drydocks,
...shipways, veneers for aircraft propellers,
...landing barges, boxes and crates, over-
...seas huts, and hundreds of lesser uses.

Ford Holds On

Founder of motor giant
...still controls company through
...issue of voting stock even after
...son's bequests to charity.

Any expectation that the Ford Motor
...Co. might be forced to a public distri-
...bution of its family-held stock was
...dispelled by two events last week—the
...filing of the Edsel Ford will, disclosing
...that charity bequests had reduced need
...for huge tax payments on the estate of
...perhaps \$250,000,000, and the election
...of Henry Ford to the presidency.

Two Classes of Stock—The will's filing
...disclosed positively for the first time
...that there are two issues of Ford stock
...rather than one, putting voting power
...in the hands of the smaller issue holders.
...This made it possible for Edsel Ford to
...bequeath the bulk of his holdings in
...the company his father founded to the
...family's favorite charity—the Ford Foun-
...dation—and yet retain for his family its
...control of Ford Motor Co.

No actual figures on the son's share
...of the Ford industrial empire are yet
...at hand, nor are any expected to come
...to light until an estate inventory is filed.
...Belief in Detroit is that he owned about
...40% of the company's stock, which
...would indicate a book value of his shares
...of approximately \$250,000,000.

5% Runs the Company—The voting
...stock (class B) of the company, retained

in the family by the provisions of the will, represents 5% of the total common stock, the 95% being class A which is exactly the same as the B except that it has no voting privilege.

Had the Edsel Ford will attempted to pass on all of his holdings to his family, federal inheritance taxes would have sheared the total down to a level probably about as low as that actually given to the relatives under existing circumstances.

● **Had Dropped All Titles**—Henry Ford, meanwhile, has taken over company operations with vigor in his post as president. The founder of the industrial dynasty, who will be 80 in a few weeks, long ago divorced himself from title in the enterprise he created, but never ceased his active participation in company matters, particularly on the manufacturing side.

He gives indication now of amplifying those shop interests with "front office" responsibilities. In that respect, however, he will lean on the old group of key executives who have helped him shape topmost decisions for years—Charles E. Sorenson, manufacturing vice-president; Harry H. Bennett, personnel director; and B. J. Craig, treasurer.

● **Some Other Key Men**—He can be expected to turn, too, to others coming into key posts within the company. For the company is beginning to divisionalize operations, say executives at the Rouge, rather than centralize them as in the past, and as it divisionalizes, it must bring up executives to fill the new jobs. One such is M. L. Bricker, heading aircraft activity, and another is R. R. Rausch, in charge of the Rouge operations. Both of them, in the prewar days,

were without specific responsibilities, reporting to Sorenson. Today they not only head rather well defined operations, but also have been named to the company directorate.

[Filing of Edsel Ford's will found Business Week, like other news magazines, on press with a speculative report from Detroit on the effect of his death on the Ford enterprises. However, Business Week's last-minute press schedule permitted quick replacement of the report when facts replaced speculation. This change, made while on press, accounts for the fact that some readers received June 5 issues with a cover-line referring them to "Ford's Future (page 18)" but found other subjects under discussion on page 18.]

Air Routes West

Denver is hub of postwar plans which would lace the area about the Rocky Mountains with a network of airlines.

Soon after the war, air services will fan out through the great open spaces of the West on a scale undreamed of before Dec. 7, 1941. Airplanes can really save the time of men on important business there. The Civil Aeronautics Board has already indicated the shape of things to come by granting two certificates of convenience and necessity. A third, even more important, is yet to come. The two granted were:

(1) A Kansas City-Denver line via

Topeka, to be operated by Continental Air Lines, small but well-managed Denver outfit which now flies 1,401 miles of routes, Denver to El Paso and intermediate points. Service is to start when the armed forces can spare the planes.

(2) A Denver-Amarillo line to be flown by Braniff Airways, Inc., of Dallas, which now serves the Southwest from Brownsville, Tex., to Amarillo. Starting July 1, Braniff has scheduled one round trip daily.

● **Across Central Rockies**—The third, still pending, is to be flown right across the central Rockies from Denver to Los Angeles, with stops at Grand Junction, Col., and Las Vegas, Nev.

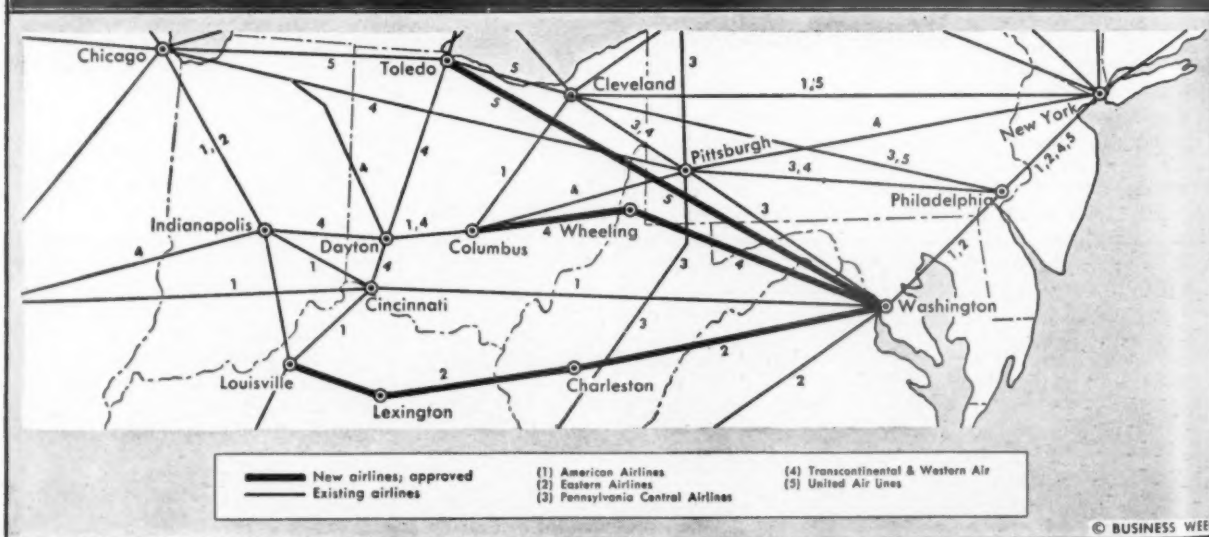
Until the coming of stratosphere planes, airlines had avoided the 14,000-ft. peaks of the central Rockies. Chief East-West routes even today are either via Salt Lake City, north of the central Rockies, or via Phoenix and Albuquerque, south of the high mountains.

● **Over the Hump**—Now United Air Lines and Western Air Lines have applications to fly right over the "big hump," which will cut off two hours of air time, Denver to Los Angeles, and 225 miles of air distance.

That's only half the East-West picture, however. Nowadays, to fly between Denver and Kansas City, one must fly either northeast to Omaha and then down, or southeast via Pueblo and Wichita, in 6 hr. and 35 min., by the best possible time. Continental will do this in 3 hr. and 35 min. to start.

● **Midcontinent Route**—With a connection at Denver for Los Angeles and vice versa, there will be a real midcontinent through route for the first time. Also, Denver and Kansas City have

NEW AIR LINKS TO WASHINGTON



Eastern as well as western air lanes made news this week, as CAB approved three new routes into Washington. Service will start as soon as the Army certifies that the

necessary equipment is available. Eastern, United, and T.W.A. will operate the new lines. Eastern and American alone now operate into Washington.

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A new U.S. bomber takes off with "something that couldn't be built"



One of America's newest bombers is better streamlined . . . flies faster and higher . . .

because an oil cooler was built in an "impossible" shape. Here's the story:

Because of the tremendous oil pressures created in airplane power plants, oil coolers have always been built round. A round surface, as you learned in high school physics, withstands greater pressure than other shapes. But a round oil cooler limits the places where it can be installed, thus limits airplane design.

When it was important recently to improve the streamlining of a new U.S. bomber, it appeared that an *elliptical* shape oil cooler would help. It would also save needed space and weight and would simplify installation.

But engineers had long said an elliptical shape oil cooler was "something that couldn't be built." "Impossible?" These days the word is only a challenge.

A group of AiResearch engineers set to work. Experimenting, testing and changing, again and again, they developed a new method of pressure stressing that has made possible the elliptical oil cooler that America's

new warplanes are flying with today.

It's this spirit of "can do"—shared by all our people and industries—that holds the certain promise for victory. And at AiResearch, too, it extends to the postwar future. For then, our war-gained knowledge and facilities will be turned to achieving greater-than-dreamed-of comforts for travel and homes. "Things that couldn't be built."



"Where Controlled Air Does The Job". Automatic Exit Flap Control Systems • Engine Coolant Systems
Engine Oil Cooling Systems • Engine Air Intercooling Systems • Supercharger Aftercooling Systems

The Farmer who
locked his barn
after the cow was
stolen, had a city
brother . . . who in-
vestigated
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Explosion wrecked
his factory



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• Like the many others who have turned to us for sub-contract work, you'll find Craft ready to gear right into your production schedule with specialized experience... modern equipment... intelligent engineering... careful management.

In other words, if you need outside help by using Craft's facilities you will save time and money and speed results.

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Craft

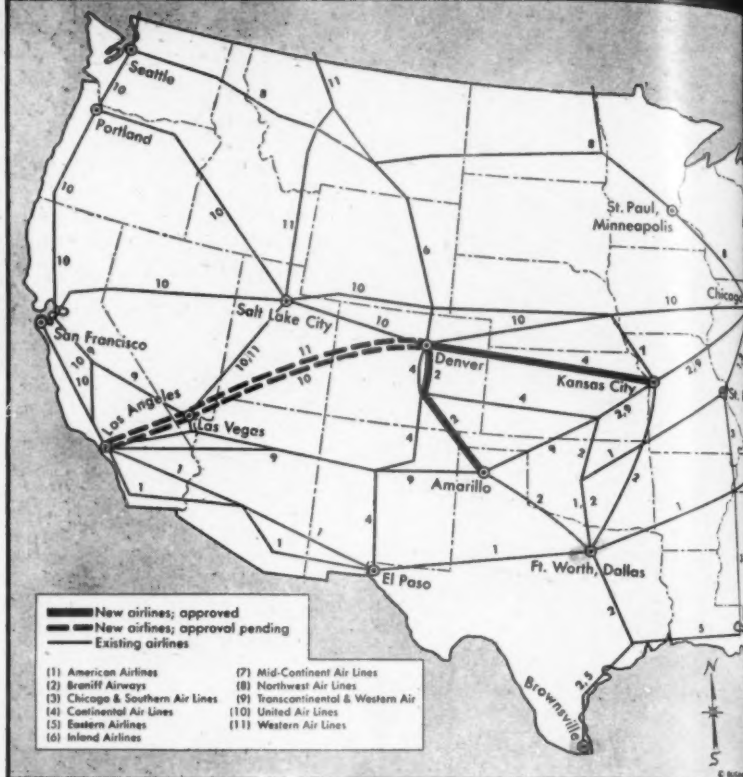
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these 7 SERVICES
in Metal Fabrication**

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- SPINNING
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- ANNEALING
- PICKLING
- WELDING

NEW TRANSCONTINENTAL AIR LINKS



many business ties, and half a dozen fast trains each way are packed daily. The CAB gave the Kansas City-Denver route to Continental (over United Air Lines, Transcontinental & Western Air, and Braniff) because it said Continental would have a more direct interest in building business. Presumably for the same reason, it favored Braniff over Continental and T.W.A. for the southwestern extension.

North and south, the picture is as inviting to Denver as it is east and west. One can now fly from Fairbanks, Alaska, to El Paso and thence to Mexico City, inside the mountains, via Inland Air Lines from the Canadian border to Cheyenne and Denver. Now one will be able to fly alternatively to Brownsville and thence to Central and South America.

• **Shaping the Future**—Denver is getting ready for an air future. A huge new U. S. modification center for war planes is being built there to be operated for the government by Continental, which has operated a smaller one for a year. Its hangars, able to hold any plane now built or contemplated, are expected to be available for postwar airline service and overhaul. The city has just announced a new 2,000-acre airport to supplement the existing municipal port, and United now centers its pilot training in Denver, after moving it from California to Cheyenne when the war started.

A Plea for Corn

Mills processing the grain fear shutdowns; farmers fear it because hogs yield more than open-market sales.

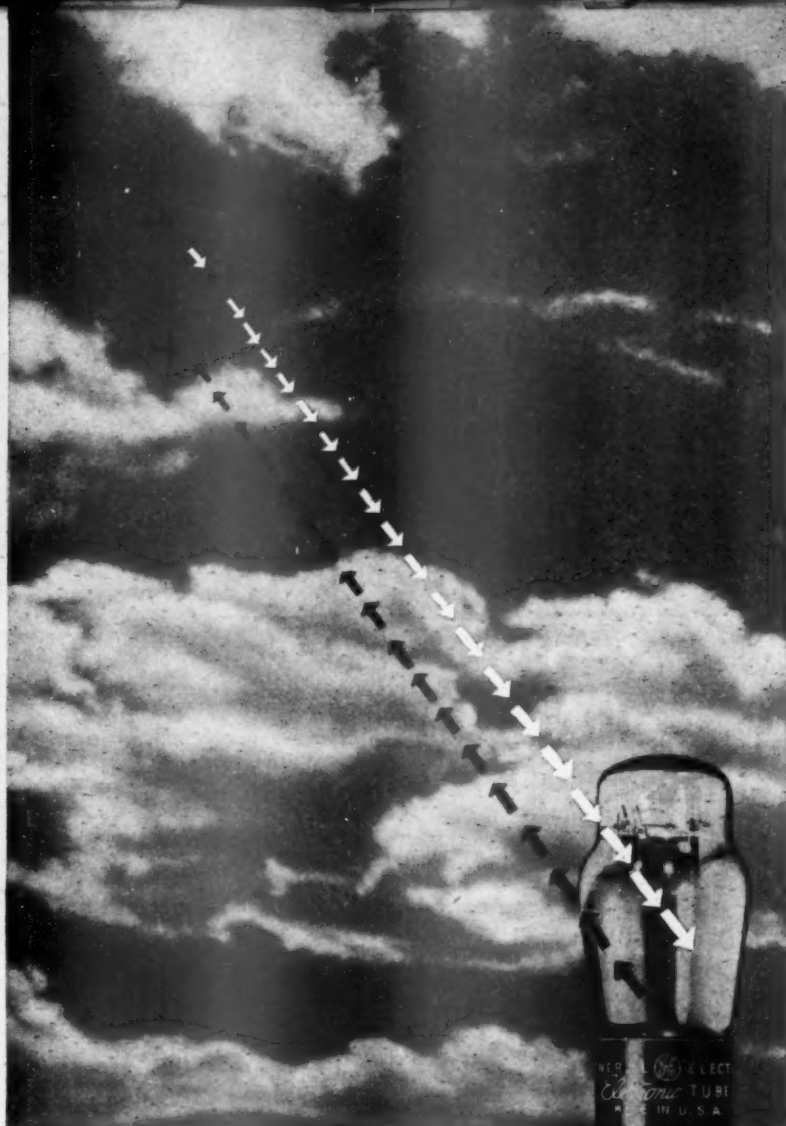
The shortage of corn for industry caused by feeding it to hogs for high net returns to the farmer, will force shutdown in corn-using industries and a 95% reduction in output within 30 days, according to George Mofa, president of Corn Industries Research Foundation, who this week carried the story to War Food Administration Chester Davis. This prediction is backed up by the committee appointed by the War Food Administration on such problems.

• **Major Users**—Production of corn starch, the major industrial product last year totaled more than 750,000 tons of which 130,000 tons were used by paper mills for textiles, 130,000 tons for paper mills, 50,000 tons for adhesives, 33,000 tons for baking powder, 18,000 tons by bakeries, 18,000 tons by confectioners. Foods of all kinds (exclusive of livestock feed) used 100,000 tons, less about 250,000,000 tons, and the rest went into such uses as the processing of aluminum (BW—Jun. 5 '43, p. 1). Commercial processors of corn are

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1. Enemy planes rise from distant airfields.

2. Radar sends out beam of ultra-high-frequency waves, reflected back to instruments which determine planes' location, speed, and direction.

3. Interceptor planes then surprise and destroy the advancing enemy.

The facts about RADAR

"The whole history of Radar has been an example of successful collaboration between Allies on an international scale."

THE NEW YORK TIMES, MAY 16

This amazing electronic invention that locates distant planes and ships despite darkness and fog is a great co-operative achievement of Science and Industry.

In this country and in the British Isles, over 2000 scientists and engineers, some

working alone, some in the Army and the Navy, many in research laboratories of colleges and industrial firms, joined eagerly in the search for Radar knowledge.

Team-work that succeeded. Once this electronic device had been perfected, industry after industry rallied to the nation's call to manufacture Radar. General Electric is proud to have played a large part, with other manufacturers, in supplying to the Army and Navy this key weapon whose peacetime applications hold so high a promise.

As early as the Twenties, G-E engineers and scientists were developing the kind of high-frequency tubes, circuits and apparatus that make Radar possible. Thus long before Pearl Harbor, G.E. was able to build Radar equipment.

Post-war applications will be many. Radar will guard and guide the flight of great commercial transports. Planes will land blind. Transoceanic liners will slip safely into fog-bound harbors — all with Radar detection equipment:

In addition to Radar, General Electric is supplying to the Army, Navy, and Marines radio transmitters, antennae and receivers, carrier-current equipment, all kinds of electronic measurement equipment, and monitors. *Electronics Department, General Electric, Schenectady, N.Y.*

Tune in General Electric's **WORLD TODAY** and hear the news from the men who see it happen, every evening except Sunday at 6:45 E.W.T. over C.B.S. . . . On Sunday evening listen to the G-E Mazda Lamp program over N.B.C. network.

GENERAL ELECTRIC

G-E employees are now purchasing over \$1,000,000 in War Bonds weekly



International News Photo

On All Fighting Fronts

... Rodgers Hydraulic Track Presses are aiding army engineers in preparing for new fields of attack. Rodgers equipment will service all crawler type tractors with Power, Speed, Durability and Safety, and is highly recommended and approved by the Engineering and Servicing Departments of every crawler tractor manufacturing company.

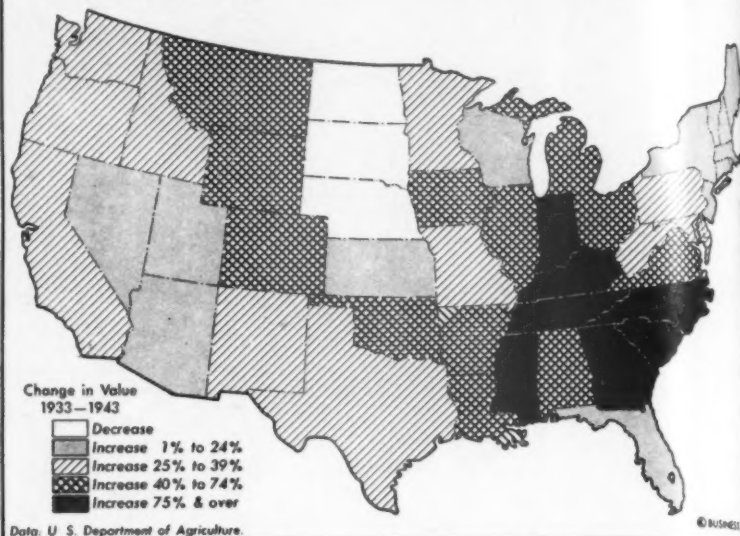


TRACK PRESS EQUIPMENT

Rodgers Hydraulic Trailer Track Press illustrated above is equipped with a four-cylinder hydraulic pump, powered by a four-cylinder gasoline engine. These presses are furnished with the "Retractable Jaw," which is considered the finest improvement ever to be made in track servicing equipment. *If it's a Rodgers, it's the best in hydraulics.* Rodgers Hydraulic Inc., St. Louis Park, Minneapolis, Minn.

Rodgers
HYDRAULIC, Inc.

TEN-YEAR CHANGES IN FARM LAND VALUES—WHERE AND HOW MUCH



gether used 300,000,000 bu., mostly to make corn sirup, starch, and corn sugar. Now they aren't sure what they'll get. The hogs of the nation (there is one for every person) are eating up the corn on the farm and leaving too little for industry despite the bumper 1942 corn harvest of 3,175,000,000 bu. compared to 2,676,000,000 bu. in 1941.

• **Various Mills' Needs**—Biggest single industrial user of corn is the wet-milling industry which used 130,000,000 bu. last year and turned back 30% of this (1,068,000 tons) in the form of animal feed; dry-mill operators used 70,000,000 bu. and returned about the same proportion for feed; small millers took 70,000,000 bu. Now alcohol is using about 30,000,000 bu. a year.

Moffett points up his predictions of shutdowns with a forecast as to what may happen to the country's huge live-stock population next fall if a feed shortage causes stock shipments too big to be handled by the slaughterhouses. A glut of meat on the market next fall, after the animals have eaten up most of our cereals, could only be followed by drastic human dietary cuts.

• **Relative Profits**—Because corn fed to hogs will net \$1.40 a bu., farmers won't sell to mills at the ceiling of \$1.05.

SEWING MACHINE RULING

Estimates are that, after the War Production Board has taken over part of existing sewing machine supplies for various government agencies, enough will be left to meet civilian needs for a year-and-a-half to two years. Under a new amendment to General Limitation Order No. L-98, WPB will control sewing machine distribution at the manufacturers' level. After the government gets what it wants, manufacturers may sell what's left to the public.

Land Sells Fast

Investors are buying land right along with operators, and values now approximate levels before the last war.

To real estate men, it's axiomatic when farmers are in the money, they buy more land. Today's farmers are an exception, but nonfarm investors are a close second. Many of them are attracted by rising farm incomes. So are trying to hedge against inflation. Not a few are business men just trying to make sure that they will be able to eat when rations get shorter.

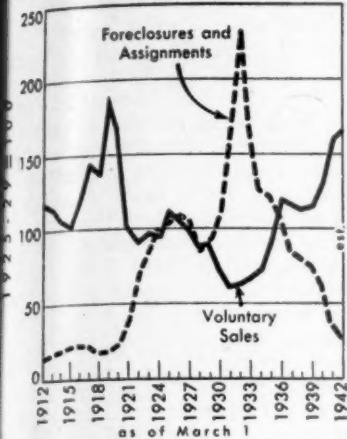
• **Sharp Rise in Values**—A survey completed by the Federal Reserve Bank of Chicago indicates that in the seventh Federal Reserve district (which roughly approximates the Corn Belt) farm values have jumped 16% in the past year—since Jan. 1. Significantly, a third of the buyers are investors. Two years ago, before the present upswing began, investors probably did not constitute more than a fifth of buyers.

An earlier survey by the National Assn. of Real Estate Boards revealed an estimated 15% average rise in farm land values for the country as a whole, with 56% of the buyers farmers and 38% investors. A 9% increase of average per-acre values as of Mar. 1, 1943, over the previous year was reported by the Bureau of Agricultural Economics, U. S. Dept. of Agriculture, partially on reports from farmers. This increase, largest since 1920, brings the bureau's index of farm land values to 99 (1912 14 = 100), compared with 91 on Mar. 1, 1942.

• **Average Sale Larger**—Local experience bears out these statistics. The Federal

FARM SALES CONTRAST

Voluntary sales soar as forced transfers decline



U.S. Department of Agriculture

© BUSINESS WEEK

and Bank of Omaha, for example, has just about cleaned up its farm holdings in Iowa. And the E. A. Strout Realty Agency, Inc., reports that this April was its best month in 18 years. The first five months of 1943 brought 50,745 requests for Strout's eastern farm catalog (10,000 more than in the same period last year) and 20,000 for its western catalog. The agency claims that farm sales ranging from \$10,000 to \$25,000 are common, and the average sale is \$955 more than last year because the higher-priced farms are selling more readily.

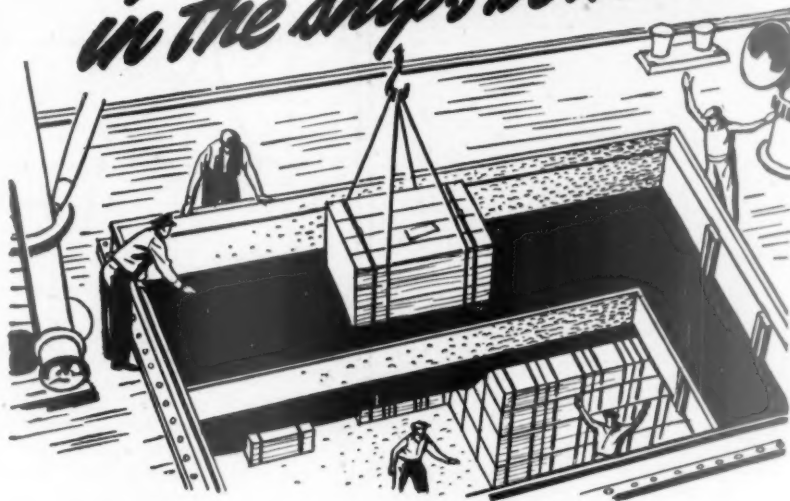
Most of the country's choice farms have already been taken off the market. Such institutions as the joint stock land banks and insurance companies are getting the long-awaited chance to unload their holdings, and the number of farms recently offered by retired farmers and estates in process of liquidation is just about depleted. National Assn. of Real Estate Boards' survey indicated that only about 10% of today's farm sales are made by financing institutions.

Distress Sales Drop—Sales caused by wartime difficulties are substantial, although some authorities feel this factor has been exaggerated. They point out that good farmers on good land are slow to sell, no matter what their problems. The N.A.R.E.B. estimates that no more than 20% of the present farm sales are caused by such conditions as lack of help, farm equipment shortages, and transportation difficulties.

The influence of investor-buyers is apparent in the disproportionate increase of farm land values near metropolitan areas such as Chicago. Sales prices in northwestern Indiana have gained 21% in the past year (4.4% since Jan. 1), and those in northeastern Illinois have increased 18.5% (nearly 6% since Jan. 1).

Earnings Ratio—Bankers in this Indiana-Illinois area estimate that such land is currently selling for between

TOP PROTECTION *in the ship's bottom!*



Cargoes for island outposts . . . lend-lease aid for fighting allies . . . supplies for our armed forces . . . in hundreds of ships' bottoms—safe from in-transit damage—because they were shipped right and strapped right. Acme Steelstrap, meeting all Federal Strapping Speci-

fications, is helping to get many types of war shipments to destination in perfect condition . . . helping to conserve vital cargo space . . . helping them to withstand the rough handling which the speed-up requirements of a total war sometimes make necessary.

IT'S ONLY A WAR PRODUCT WHEN IT GETS "THERE"

Only when a product is in the hands of those who use it, does it become a real war product. If it arrives in damaged condition—it loses its advantages—and all the toil and sweat that went into its manufacture becomes just so much wasted effort.

Shipments that are Acme Steelstrapped are damage-free—ready for immediate use upon arrival. Besides, with Acme Steelstrap, important time savings are made in loading and unloading . . . container material is conserved . . . and costs are cut. There is a type of Acme Steelstrap for every kind of war package, including carload loadings.



Ease and convenience of Acme Steelstrap and tools are helping many women to do a fast, efficient job in the shipping room—rivaling the outstanding work other women are doing on the production line.

FOR EVERY TYPE OF SHIPPING PACK

ACME STEEL COMPANY
2828 Archer Ave., Chicago, Illinois

CONSERVATION is DeLuxe's Field



Cleansed Oil and Doughnuts!

Cleansing hot oil in a doughnut machine is a demonstration of the versatility of DeLuxe Oil Filters that may give you a clue to an advantageous use on your product or on some manufacturing operation.

If you have a problem of oil or liquid cleansing, DeLuxe engineering and principles of oil cleansing, which effect an actual cleansing of contaminants before they can form into sludge or other destructive substances, are at your service. Be your problem diesel engine operation, stationary or vehicular gasoline engine operation, or the filtration of other liquids, the probabilities are that we can help you to improve performance and machine life.

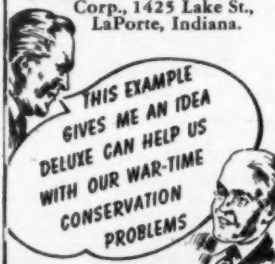
It has been our privilege to work with the many organizations, including the leading manufacturers and operators of gasoline and diesel engines of all types, in the solution of filtration problems. This experience is at your service. Your inquiry will be appreciated and involves no obligation. Write DeLuxe Products Corp., 1425 Lake St., LaPorte, Indiana.



Oil filters for all types of gasoline and diesel engines



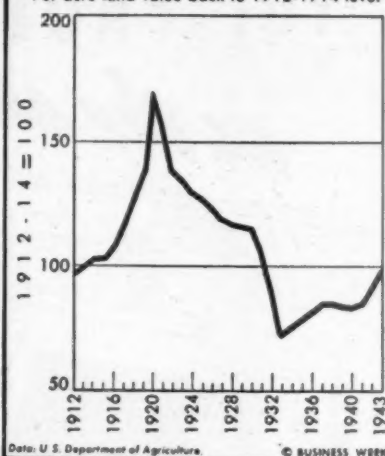
Also manufacturers of Light Weight Cast Iron Pistons; standard equipment with over forty manufacturers.



DELUXE FILTERS and PISTONS

FARM REALTY UP

Per-acre land value back to 1912-1914 level



22% and 30% above its "normal" value, based on long-time earning power. Of 46 bankers reporting, 31 specified that in their communities investors predominate over farmer-buyers. But in the Corn Belt, 80% to 85% of the buyers are farmers.

There is continual behind-scenes discussion in such government agencies as the Farm Credit Administration of possible measures to prevent a repetition of the hog-wild speculation in farm lands of 20 years ago. This might be either a priority system for farm land, with local committees determining who is entitled to buy, or some kind of transaction tax, with exceptions for normal situations. For example, one transfer might go tax-free, but the buyer would incur a prohibitive tax if he tried to resell.

● **Past Experience**—Few real estate authorities take much stock in these proposals, and few believe there will be need of them, although farm land values are expected to continue rising during and after the war. The Strout organization points out that in 1919 it sold 3,668 farms compared with 1,934 in 1918, and 5,114 farms in 1921 compared with 4,272 in 1920, when farm prices had begun to drop.

But today's buying doesn't follow the 1921 speculative pattern. Farmers and investors alike are inclined to hang on to the land they buy now, and farmers at least expect to operate their additional fields next year. In 1920, equities of 15% to 20% were common; now they're larger. Of the 707 bankers included in the seventh Federal Reserve district survey, 339 reported equities in their communities as "sound" (50% or more), 294 reported them "substantial" (25% to 50%), and only 74 reported them "thin" (less than 25%).

● **Purchases for Cash**—About half the farmer-operator buyers in this district are tenants now acquiring land of their own. Cash sales are not unusual despite

extremely easy borrowing conditions (Interest rates of 4% and under on farm mortgages are frequent in better farming areas.) Strout reports that the present percentage of cash purchases is the highest in its 43-year experience.

Some factors have a bearish influence. In the past 18 months, bumper crops and bumper commodity prices attracted many a business man to farm land investments; but if floods, droughts, and labor shortages reduce this year's harvest, investors' enthusiasm will probably cool somewhat. Farm expenses which so far have lagged, will eventually catch up with farm incomes. Increased income taxes and ceiling prices on commodities may also influence farm land values. The shortage of labor and farm machinery may become increasingly important.

● **A Lesson Learned**—Not the least factor in holding down speculative buying is that people still remember what happened to farm values during and after the last war.

Furniture Fizzle

SWPC's grand gesture turned out to be off-stage noise to muffle Lou Holland's exit line manufacturers disgruntled.

The Smaller War Plants Corp. is now prepared to admit that the much ballyhooed \$10,000,000 prime contract it was supposed to place with Michigan furniture manufacturers (BW-Apr. 14, '43, p17) was a flop. As things turned out, the contract amounts to less than \$2,000,000, and most of the manufacturers are dissatisfied with prices, lack of priorities, and the fact that the whole deal is only a three-month job.

● **Why It Flopped**—The reasons for the flop—so far as they can be unearthed—hinge largely on the political inception of the furniture affair. This background, in turn, produced publicity that was out of all proportion to the true facts. Here is approximately what happened:

Some months ago, SWPC's progress resulted in a drive to fire Lou Holland, then head of the organization. Holland, however, felt that he was being shoved unfairly into the role of a whipping boy and decided to hold a press conference to tell all—SWPC's lack of recognition, poor treatment at the hands of other war agencies, and more of the same.

● **Exposé Sidestepped**—If there is anything that Washington dreads, it's an exposé by an official who is on the way out. So WPB's Planning Board (currently in limbo) urged that SWPC quickly push through a handsome prime contract to take the wind out of Holland's sails. Upshot was the announce-

LET'S GET THIS JOB DONE Now!

To many little boys, war is just a game to play . . . like "Gangsters," "Indians," or "Pirates."

But to this little boy, war means something different! His daddy has gone away, maybe for a long time . . . possibly forever.

To him war means a lonesome, longing childish heart—a void that only a father can fill.

Yes—we *must* work and fight with every ounce of strength and skill we have—we *must* make far greater sacrifices . . . before this little boy, and many thousands like him, can again have their daddies home.

For all these little boys, then—and their mothers—and their soldier-fathers—LET'S PRODUCE MORE, *FASTER!* They are depending on us for the ammunition, equipment, and supplies that mean a quicker Victory.

The Gulf South is *IN* this war. Its people, its resources, its mighty industries are joined with the rest of America in the grim race to outproduce and outfight our enemies.

Buy War Bonds . . . Help America's Victory!



The Gulf South

Working with All America for VICTORY

This Advertisement Published by

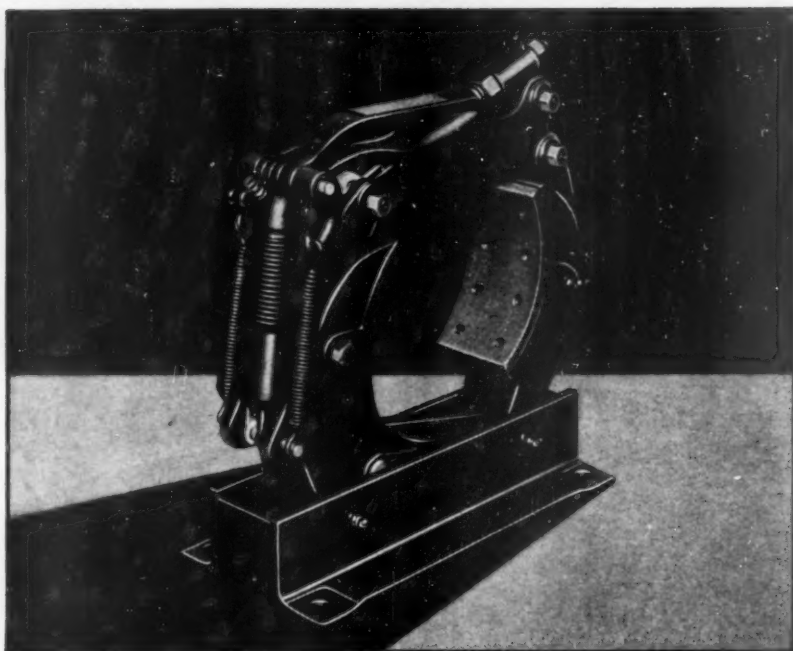
UNITED GAS PIPE LINE COMPANY

A Natural Gas transmission Company built in peacetime . . . now dedicated to serve wartime fuel requirements throughout the Gulf South.

FOR TEXAS, Mail received at: Beaumont, Dallas, Fort Worth, Houston, Longview, San Antonio and Wichita Falls. FOR LOUISIANA, Mail received at: Baton Rouge, Lake Charles, Monroe, New Orleans and Shreveport. FOR MISSISSIPPI, ALABAMA and FLORIDA, Mail received at: Jackson, Miss.

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SYNONYMOUS with QUALITY!

Wagner

P R O D U C T S

**reflect sound engineering
and modern manufacturing methods**

In shipyards, on docks, in mines, mills and factories—wherever cranes are used—Wagner industrial braking systems are popular because of their proven quality and dependable performance.

Quality has been synonymous with the name Wagner—ever since the company was founded in 1891. It is identified, not only with Wagner industrial hydraulic braking systems, but with Wagner electric motors, transformers, fans and other products making up the *complete* Wagner line.

If you need braking systems, or other products made by Wagner, consult the nearest of Wagner's 29 branch offices, located in principal cities and manned by trained field engineers.

FOR VICTORY—BUY U. S. WAR BONDS and STAMPS

E49-9

Wagner Electric Corporation

ESTABLISHED 1891

6460 Plymouth Avenue, St. Louis, Mo., U. S. A.

ELECTRICAL AND AUTOMOTIVE PRODUCTS

ment of \$10,000,000 of furniture contracts, with the Federal Public Housing Authority forking up the money for Victory beds, chairs, dinette tables, child desks, and mirrors.

This maneuver served its immediate purpose. Holland departed without any revelations. But while SWPC avoided one embarrassment, it created several new ones that were even worse.

• **Didn't Need That Much**—It developed that the FPFA didn't need \$10,000,000 of furniture, that about \$2,000,000 was plenty. Next, the manufacturers in the Michigan area grumbled about the contract prices, claiming they were based on southern labor costs. Other irritations arose over priorities and a general bungling of the whole administrative job. In the end, many a manufacturer says he would have torn up his contract, except that it might be bad business to tar and feather a government agency which is supposed to help the little fellows.

But worst of all, SWPC's new chief—Gen. Robert Johnson—is now stuck with a mess which he had no hand in creating. Johnson is a firm believer in prime contracts, through SWPC, to help distressed manufacturers, but the ill-advised Michigan venture appears to have put a crimp—temporarily, at least—in that kind of procedure.

• **Seeking Civilian Contracts**—The best the SWPC can do now is admit that the Michigan affair did not turn out as originally represented and hope that in time it will be forgotten. Meantime, Johnson is proceeding with his idea that civilian-type production is the best bet for distressed plants. Six sources are being tapped to get it:

- (1) Military procurement agencies which need civilian-type articles like pistol belts, shoes, blankets, fabric.
- (2) Prime contractors.
- (3) Department stores, buying syndicates, and other merchants.
- (4) State, county, and municipal purchasing agents.
- (5) WPB's industry divisions (which can influence the disposition of orders and the allotment of materials).
- (6) The nation's banks (which are in a good position to advise their customers to buy from distressed plants, and also to lend the latter money).

• **New York Plan**—Johnson is placing much emphasis on the merchants' role in this setup. A so-called "New York plan" has been devised, the gist of it being that the retailers concentrate their orders in distressed plants. The retailers have indicated their willingness to do this and claim they'll buy anything that smaller plants can turn out. The problem now is to get sufficient materials for the manufacturers who would gain by the retailers' promises. Johnson has indicated that he will attempt to pry loose the necessary metals, etc., that would make the plan worthwhile.

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He makes AND sells

REX Mechanical Engineering—Rex M.E.—serves all engineering. He manufactures more than 2000 types and sizes of chain belts. That is, however, only a part of his business.

His business is mechanical engineering, the design . . . manufacture . . . application . . . selling and maintenance of special apparatus for transmitting power and handling materials.

In addition to the design and manufacture of his chain belts, Rex Mechanical Engineering—Rex M.E.—must perform the functions of application and selling. These are in some ways his most important obligations to industry.

Because of the complexity of modern industry, all engineers must seek and get from each other the extensive and intensive knowledge that only specialization can provide.

Application and selling are the technical information services provided by specialists to help analyze difficulties and find the best ways for surmounting them.

For this service Rex Mechanical Engineering—Rex M.E.—maintains a field organization, most of whom have served their apprenticeships in his plants, drafting rooms and laboratories. For additional counsel, the territorial men call on specialized designing engineers in Milwaukee who have the advantages of national experience.

Through the work of all of these men in many fields, Rex M.E. is learning—and making available—much that is helpful in the great work in which all engineers are engaged, namely, to achieve a maximum result at a minimum cost and waste. Chain Belt Company, 1726 W. Bruce St., Milwaukee, Wisconsin.



CHAIN BELTS

In more than 2000 sizes and types

Sanitation Equipment
Materials Handling
Equipment
Construction Machinery



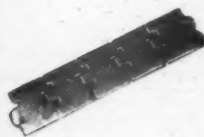
Rex Chobelco
Steel Chain Belt



Rex Pintle Chain Belt



Rex Roller Chain Belt



Rex Table Top Chain Belt

Rex Chain Belts which are made in malleable iron are also furnished in Rex Z-Metal, a superior material for cast chain belts. Many other chain belts are made of steel for the heaviest services or highest speeds. There is a Rex chain belt for every drive and conveyor.

For further information, write Chain Belt Company, 1726 West Bruce Street, Milwaukee, Wisconsin.

CHAIN BELT COMPANY OF MILWAUKEE



THEIR FEUD IS ENDED

Rubber Director William Jeffers (left) and Undersecretary of War Robert Patterson (center) now seem to be good friends, having resolved their dispute over production equipment for

their respective synthetic rubber and aviation-gasoline programs. The new cooperative spirit was evident as both toured southern petroleum processing plants last week. One stop was at Standard Oil's 240-ft. catalytic cracking unit (above) at Baton Rouge, La.

Here to Stay

Study by Hycar chemists contends natural and synthetic rubber aren't the same, that synthetic won't go out.

To support a thesis that synthetic rubber is not a temporary and questionable substitute, but an entirely new family of materials, superior to natural rubber, Hycar Chemical Co. has just published a study and forecast by its technical staff. "Synthetic rubber," it concluded, "never will be replaced by natural rubber regardless of availability or price."

• **Tailored to the Job**—Chemists say that real progress in handling synthetics began to be made when they discarded the old reliable methods and materials they had been using with natural rubber and started over. By varying compounds and manufacturing techniques, and by mixing various synthetics, chemical rubber can be tailored to fit any given specification more exactly than it is pos-

sible for plantation-grown rubber to do.

Several companies, it is reported in the rubber trade, have even developed synthetic leathers within the last 18 months that are equal or superior in wearing qualities to natural leather. There will be no further use after the war, in the opinion of some chemists, for mechanical applications of leather.

• **Goes into Specialties**—Jointly owned by B. F. Goodrich Co. and Phillips Petroleum Co., Hycar some time ago turned back to its parent companies its tire rubber manufacturing facilities and now is devoting itself to manufacture and development of butadiene-acrylonitrile (Buna-N type) rubber for other specialized purposes. Its production currently is estimated at about half the annual 16,400-ton volume turned out in its field.

The cheapest Hycar sells for 56¢ a pound, whereas GR-S (Buna-S tire rubber) is priced at 36¢, Thiokol, 30¢, Neoprene, 45¢, and GR-I (butyl rubber) 33¢.

• **One Important Field**—Despite the price, Hycar's demand exceeds supply. The company claims it could sell all its production, if government regulations

would permit, to the paper manufacturers. Synthetic latex imparts toughness, waterproofing characteristics, or both, to paper, and applications in this line are visualized for use in a field that ranges from newsprint to replacements for cans.

Other possible uses of oil resistant synthetics forecast in the Hycar study include:

Motor bearings lined with synthetic rubber and operating in oil. (They're used in marine propeller shafts lubricated with water.)

Vibration cushions for heavy machine installations; tie plates for railroad tracks.

Connections in automobile and aircraft cooling systems. Synthetics can be made to withstand high temperatures that would destroy natural rubber.

Gasoline tanks (self-sealing tanks are made of synthetic rubber), and tubeless, self-sealing tires.

Rubber gloves, lighter and better than kinds now available, and light-weight garden hose which could be exposed to the sun definitely without damage; raincoat fabric that won't stick together.

Insulating material of the wallboard type.

A mixer to make plastics resilient and practically unbreakable.

• **Important Properties**—In a catalog of properties, Hycar made these comparisons:

Abrasion resistance (wearability)—Laboratory tests give a 30% margin to the particular synthetic tested against natural rubber. In a recent road test, synthetic tires were driven 60 miles an hour for 37,000 miles.

Heat resistance—Natural rubber loses practically all its elastic properties and tensile strength when heated 35 to 40 hours at 300 deg. F. The synthetic in the same test heated slightly, increased somewhat in tensile strength.

Elasticity at low temperature—A synthetic is being produced which can be compounded to retain flexibility at 70 to 80 degrees below zero.

Resistance to gasoline and oil—Soaked in 100-octane aromatic gasoline, a synthetic swelled slightly, natural rubber swelled several hundred per cent and lost all its usefulness.


Resistance to metallic action—Natural rubber tends to deteriorate in contact with copper. Tinplating, customary when natural rubber is the insulator for copper wire, isn't necessary if a synthetic is substituted.

Hard rubber—Synthetic showed much greater resistance to shatter than natural rubber as well as higher tensile strength.

1-A'S PREFERRED

How closely the hiring departments of war industries can cut corners is shown by the Lockheed and Vega advertisements in Los Angeles dailies, seeking 1-A men for moving vital war materials from trucks and cars. The ads point out that the work requires no training, that a selectee can work even one day before induction, at \$6 a day, \$9 for Saturdays, and double time on Sundays. Employment is assured up to the last day of civilian life.

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**His call today may
prevent a delay in
her work tomorrow**

MANUFACTURING FOR WAR

Manufacture of aircraft equipment for the Army Air Forces, and the manufacture of Burroughs figuring and accounting equipment for the Army, Navy, U. S. Government and the nation's many war activities, are the vitally important tasks assigned to Burroughs in the Victory Program.

An ounce of prevention is still worth a pound of cure—especially these days when time and manpower are at a premium. A phone call will bring a Burroughs service man when you need him, but it's far wiser to arrange with Burroughs for periodic inspection, lubrication and adjustment of your Burroughs machines, so that emergencies, and the delays they entail, may be prevented. The Burroughs service man is the best answer to the ever-mounting problem: "How can I get the most out of my present machines, and make them last for the duration?" He is factory trained and factory controlled, and makes replacements with genuine Burroughs parts. His work is guaranteed by Burroughs. For full details, call the local Burroughs office.

BUY YOUR SUPPLIES FROM BURROUGHS—Users of all types of office machines find that Burroughs ribbons, carbon paper, roll paper and other supplies cost no more—assure better, more uniform results.

BURROUGHS ADDING MACHINE COMPANY • DETROIT, MICHIGAN

Burroughs

ADDING, CALCULATING, ACCOUNTING, STATISTICAL, PAYROLL AND BILLING MACHINES

**100
DRILLING SPEEDS**
*at his
Finger Tips*



*Photo courtesy
Brewster
Aeronautical
Corporation*

**...to SPEED
AIRCRAFT PRODUCTION**

Machinists call it the most significant advance in drilling in years! This streamlined Buffalo "RPMster" Drill is a champion production drill with 100 different speeds "on tap" with the touch of a lever! Quickly adaptable for drilling, tapping, spot facing, counter-boring, hollow-milling and similar operations. Design includes positive V-belt drive, six spline alloy steel spindle, semi-automatic feed, steel back gears, and exceptionally accessible control. Here's a real implement for Victory! Engineering data on request.



BUFFALO FORGE COMPANY
458 BROADWAY BUFFALO, NEW YORK
Branch Engineering Offices in Principal Cities
Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

Victory Heels

Only lowest grades of reclaim rubber are available, and the reprocessing cost is greater than for crude.

Relief felt by hard-pressed rubber heel manufacturers when curtailment of the leather supply cut total shoe production was short-lived, and it was completely obliterated in the soaring needs of shoe repair services (BW—Apr. 10 '43, p48).

• **Crude Rubber Ruled Out**—More than a year ago, manufacturers of rubber heels and rubber soles abandoned use of crude rubber by order of the War Production Board. Since then models designated as V-1, V-2, V-3, and V-4 have been processed out of the lowest grades of reclaimed rubber. V-4 heels, the last resort of manufacturers struggling to fill back orders, utilize scrap

rubber and square-woven fibers taken from garden hose, belting, raincoats and other bottom-of-the-barrel sources of reclaim.

Hope of producers that use of reclaim would reduce costs disappeared when reprocessing costs in most cases turned out to be greater than for new war models made in whole or in part of crude rubber. Moreover, costs of other materials have risen 20% to 50% and reclaim itself has gone up 15% to 20% in price.

• **Whole Heels Scarce**—At present, the industry is less worried about the price squeeze than the over-all supply. Major critical shortage is in whole heels which have gone to equip Army and civilian work shoes. There is almost a surplus of half-inch rubber heels—at least more than are required for immediate replacement purposes—because literally millions of white-collar workers have gone into the Army or into occupations where heavy shoes equipped with whole heels are needed. Executives of the O'Sullivan Rubber Co., one of the six or seven big

SOLDIERS FOR A DAY

At Fort Belvoir last week, 100 oil industry executives became ordinary "yard birds" to experience the rigors of an Army inductee's first day in camp. For 26 hours, they lived in barracks, drilled, ate at mess tables, stood in line (right), and wore rough G. I. fatigue uniforms. While flash bulbs popped, Parker Melvin (below), president of the Pennsylvania Crude Oil Assn., fired a .45-caliber machine gun for his colleagues. For this chance to emulate a similar excursion by union leaders (BW—Apr. 3 '43, p64), the oil men paid all their own expenses.



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est producers of rubber heels and soles, estimate that shoe findings jobbers have inventories of half-inch rubber heels for repair purposes equal to as much as a three-month supply. This backlog, however, does not apply to all of the more popular sizes.

No Middleman—There is no such inventory for use in manufacture of new shoes. Sales to manufacturers are made directly, not through jobbers, and there has been a serious back-order situation for about two years.

The rubber sole and heel industry had no complete statistical data on production until last fall when manufacturers applied to WPB for an increased allocation of reclaimed rubber. An industry committee assembled information from rubber producers and shoe manufacturers before reporting to WPB the following estimates of the percentages of new shoes made with rubber soles and heels in the first eight months of 1942:

	Rubber heels	Rubber soles
Men's	84.2%	29.6%
Women's	26.5%	19.4%
Misses' & children's....	46.2%	27.3%
Boys'	75.6%	47.5%
Youths'	60.5%	25.4%
Little gents'	58.4%	39.1%

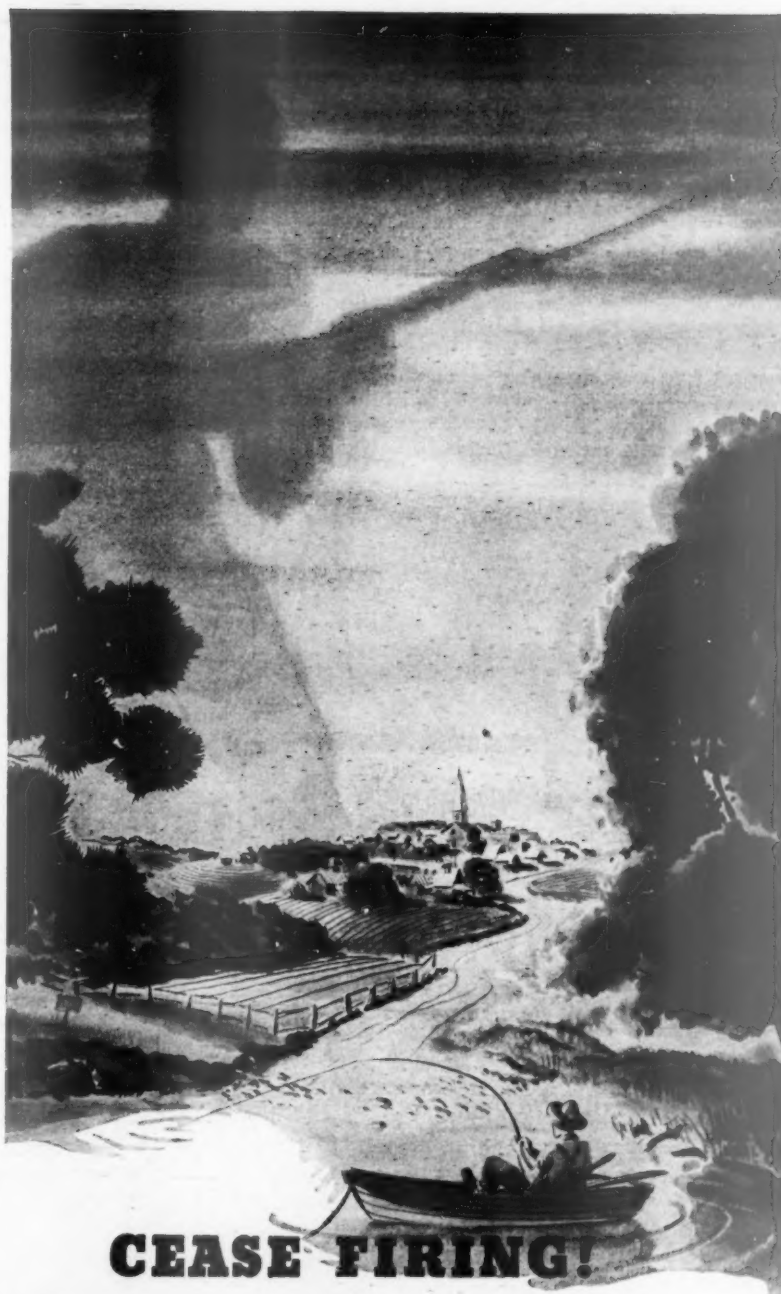
Plans Revamped

Resources planning board agrees to delete all portions of report dealing with the upper Arkansas River valley.

Organized resistance, including the threat of ridicule, has caused the National Resources Planning Board to alter a proposed report on future planning of the Arkansas River valley, which would have presented it as an integrated whole from its mouth above Shreveport, La., to its source among Colorado's sky-piercing peaks west of Leadville.

• **Colorado Excepted**—Opposition was led by Colorado officials, including Dr. ElRoy Nelson, director of the state planning commission. Nelson told NRPB officials that publication of the report, seeking to combine forcibly the interests of regions and people as diverse as those in the Colorado mountains, the irrigated high plains, and the flatlands of eastern Arkansas, would discredit all planning and "cause all men and agencies concerned in planning to be laughed out of Colorado."

Nelson said the only physical link is the Arkansas, and that a tenuous one, since barely 15% of its source-water goes to the lower basin—the rest is used in irrigation in the West. For long periods, the linking streambed is dry. Many suggestions in the report, such as that



CEASE FIRING!

THE two words that will echo 'round the world when victory is ours... until that day American industry is keeping its sleeves rolled up to do the biggest job in America's history... producing materials on a gigantic scale to keep the world's best fighting force in command of every situation. We, here at MEISSNER, are making radio and electronic equipment as we have for almost twenty-five years. When post-war radio becomes a reality, the name MEISSNER will be a quality symbol for many outstanding radio products.

"Precision-Built
Electronic Products"

M **eisner**
MT. CARMEL, ILLINOIS

the irrigated regions abandon intensive agriculture and go back to forage and grass, are calculated to madden the West, Nelson contends.

● **Report Revised**—The NRPB responded that the portion of the report dealing with the upper part of the region—the valley from Garden City (Kan.) westward—would not be published. The westerners believe they also have won an initial victory over any new proposals for an Arkansas Valley Authority. Such a proposal outlined in bills introduced a few years ago by Rep. Clyde T. Ellis of Arkansas alarmed the westerners. They feared that their interests, and those of western development generally, would be subordinated to those of more populous communities farther downstream.

Is the Wash Late?

If yours isn't, you're lucky. Laundries, short of help, are swamped; types of service are cut, and shops are closing.

Most laundry owners would be happy with just about any deal that would let them get out of business with their shirts. (Let the customers worry about theirs.)

Last year, when the Army let it be known that it would take over commercial laundries in areas where adequate service was unobtainable (BW—Aug. 8

'42, p. 20), many laundry owners were terrified. Today, they are scurrying around to consummate rental deals with the Quartermaster Corps.

● **Can't Handle Business**—Not that the laundries haven't enough business. They have too much. Last year, according to the American Institute of Laundering, volume of \$550,000,000 broke all records. But the operator who looks at that figure will just sigh and wish that the morrow might bring, as by miracle, a full crew of markers, checkers, flatwork and press operators.

Switchboards are swamped with pick-up calls. Cash-and-carry stores are jammed with bundle-lugging customers (or would-be customers). Yet the laundry industry is, on a profit-and-loss basis, nearly as bad a bet as it was during the dark days of the depression. Causes are (1) fixed prices, and (2) the futility of bidding for any female help where war work is available.

● **Two Unsuccessful Aids**—Since the first of the year, OPA has granted few if any increases in the price of retail laundry services. It has told the laundry and dry cleaning industries that they might raise wholesale and contract prices provided—and here's the catch—the customers would assure OPA that they would not pass along the hike. Another relief measure—more theoretical than real—permits laundries to raise wages to as much as 40¢ an hour to hold old employees or attract new ones if the increased cost is not added to customers' bills.

Plaint of operators is that it now takes three new employees to do the work that two old ones handled; the more the laundry hires, the more money it loses. When wages of skilled workers are moved up high enough to hold them, payrolls inevitably skyrocket above the 60% of gross sales which is generally accepted as the danger line.

● **Old Plan, New Name**—Nevertheless, there have been one or two measures providing practical relief. One is the OPA-approved streamlining of services. In numerous communities, the all-finished family laundry service has disappeared. True enough, it brought the highest revenues, but it also took the most time and was proving a hopelessly losing proposition. In its place, rough dry, oldest of family laundry services (in which flatwork and shirts are ironed), is being pushed, and smart operators have renamed it Three-Quarter Finish.

Depression-born services such as Bag O Wash, Budget Bundle, Economy, and dozens of others also are disappearing. Family services that seem to have the best chance of surviving in addition to rough dry, are ones like damp wash, Thrifty (damp with flatwork ironed), etc. Ironing of shirts is optional in all of them.

● **Fewer Creases for Army**—The Quartermaster General's office also has extended



SLUG SLINGERS

Now spraying death on most fighting fronts are the Army's newest hand weapons—semiautomatic carbines (above) and inexpensive trouble-free submachine guns (below). Designed by Army Ordnance to replace the old .45-caliber pistol for paratroopers, the 6-lb. carbine fires 15 slugs of 30 cal-

iber with accuracy. For infighting, it can be fired from the hip, for longer ranges from the shoulder. The machine gun, resembling a rocket pistol of the adventure comic strip type, weighs 9 lb., shoots .45-caliber slugs at the rate of 450 a minute—even after immersion in salt water. At about \$20, it costs less than half as much as the Thompson submachine gun.





**HERE'S
INCREASED
WAR PRODUCTION
AS YOU WANT IT
WHEN YOU WANT IT**

Aircraft: Lyon Aircraft Division is fabricating aluminum and steel parts and subassemblies for aircraft being delivered by prime contractors to both the Army and Navy.

Sheet Steel: Forty-three years' experience in fabricating steel—nearly three years on special war products.

Sheet Metal Stampings: Facilities for handling a wide range of gauges, sizes and drawing operations including annealing. Experience on conversion of castings and forgings to sheet metal.

Ships: Experienced Lyon Engineers are working daily with architects and shipbuilders on prefabricated parts and furniture.

Know How: Lyon war contract experience dates from July, 1940. Every inquiry is given "specialist" handling. Experienced development, design and engineering staffs. Complete toolrooms in all plants. Send for this new book, "Craftsmen in War Production." Describes facilities for aluminum and steel production.

LYON METAL PRODUCTS, INCORPORATED

General Offices: 1006 Madison Avenue, Aurora, Illinois

Sales and District Offices Manned by Experienced Engineers in All Principal Cities

LYON METAL PRODUCTS, INCORPORATED



Each MOBILIFT must fill a Vital Wartime Need

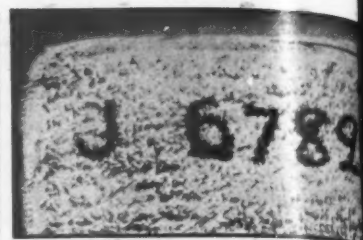
The needs of war are growing. America's supply lines are humming with activity in order to meet wartime schedules.

And there you have the big reason why fewer *Mobilifts* are available for 1943... a big part of our output is going into army warehouses. However, a portion of our production is being set aside for essential war industries. Later even more *Mobilifts* will be ready to simplify America's materials handling problems. Plan now to use *Mobilift* to help you improve your own inside transportation system.

MOBILIFT

Moves Materials like a Giant!

VAUGHAN MOTOR COMPANY ★ 835 S.E. Main Street, Portland, Oregon



To ease handling of Army wash and reduce sorting errors, most laundries use big bold marks, abandoning invisible marks and tags used for civilian laundry. Each contains the first letter of a soldier's last name and the last four digits of his Army serial number.

a helping hand to laundries located near Army camps—but its plan has meant a lot of explaining by laundry operators to irate officers and enlisted men. Where the peacetime method of pressing Army shirts called for three creases in the back and two in the front, the QMC now permits elimination of all creases except in the sleeves. This change means a 10% increase in the production of press operators.

The plan to pool laundry trucks got little support. Investigation indicated that all trucks were topping 100% of normal capacity with route men handling as much as twice their old volume by dividing routes up into six sections, each to be served on a separate day.

The cash-and-carry shops that were afraid gasoline rationing would ruin their business are, as a matter of fact, simply swamped. Some close their receiving counters for a day or two each week; in extreme cases, as in parts of the Southwest where airfields are located, cleaners open for only an hour or two in the mornings, and there are long lines in front of their shops even before the doors are unlocked.

• **Take What You Can Get**—Dry cleaners the country over are beginning to warn that service may take seven to ten days. Laundries in Houston, Tex., are running a cooperative advertising campaign to advise customers that they are getting Wartime Bundle service—"fewer frills, fewer fancy services, and be patient even though it takes days longer"—and the Texas Laundry Owners Assn., with more than 300 members, has adopted seven-day service. In Cleveland, the Davis Laundry & Cleaning Co. won't wash more than three shirts a week even for regular customers. Atlanta laundries didn't quibble; for all except extreme emergency cases, they put service on a once-every-two-weeks basis.

Explanation for it all, say laundry owners, is that the wash women they used to hire now send out their own wash.



One way trip...to death!

A DEVASTATING MIGRATION occurs at irregular intervals in Norway. Countless hordes of rodents, known as "lemmings," emerge from nowhere. They seem to be led by some invisible Pied Piper.

They travel in parallel lines three feet apart, straight through hay and corn stacks, across mountains instead of around...on and on to the brink of the sea. But they don't stop there. They swim straight to a point miles out in the ocean. Then they swim in circles until they drown!

Several theories have been advanced about the fatal pilgrimages of lemmings, but the most likely one is that they are searching for an island which no longer exists. It is an age-old custom: blindly attempt-

ing to live by landmarks which disappeared long ago.

The custom is represented by men who hooted at automobiles—by the men who laughed at Wright—and by the men who said democracy couldn't compete with a dictatorship. Happily, those men can be belied by a reliable index—that of the machine tool industry.

We gave Germany a 7-year head start, and passed her in about a year. For every one machine tool produced today by the Nazis, we are now producing 5.

The Conomatic, a key machine of peacetime industry, is well known to the production men of America. Those with their eye on the future are already thinking in terms of peacetime production—after victory is won—with Cone Multiple Conomatic Lathes.



CONE Automatic Machine Company, Inc. Windsor, Vermont



as in the
BEST PIANOS



SPECIALIZATION

MAKES THE DIFFERENCE

Suppose you had started nearly a hundred years ago to make something better than it had ever been made before. Say that you kept at it . . . learning more and more by doing more and more . . . by study, patient research, perseverance . . . by originality in procedure . . . by *creative cooperation* with the people for whom you make what you make.

That's *Specialization*. That's the history and the future of The Wm. Powell Company . . . makers of valves . . . and valves only . . . for industry.

Powell Valves

THE WM. POWELL COMPANY
CINCINNATI, OHIO



WAR BUSINESS CHECKLIST

A digest of new federal regulations affecting priorities, price control, and transportation

Corn Products

To help unscramble a highly tangled livestock feed situation, OPA has placed ceilings on a number of corn products (Regulation 401) to bring them in line with the corn (already under ceilings) from which they are made. Products listed are ground corn, cracked corn, corn chops, hominy feed, corn bran, ear corn chops, corn feed meal, corn germ meal, and corn germ cake. Amendment 6 to Regulation 305 exempts wallpaper paste from terms of Gen. Max. and all other OPA price orders, and the amendment also exempts all other corn products not specifically listed in Regulations 305 and 401. (Regulation 305 covers milling products such as corn meal, corn flour, grits, etc.)

Rayon Hosiery

As predicted (BW—Nov. 7 '42, p. 64), WPB has cut the amount of rayon which hosiery manufacturers may use, as replacement for silk and nylon formerly consumed, from 85% to 70% of the average monthly consumption during the first half of 1941. No change was made in the amount allowed for products that have always been made of rayon yarn.

Tire Inspection

Tire inspection requirements for commercial motor vehicles have been eased by the Office of Defense Transportation. The maximum allowance between inspections is now 5,000 miles or six months, whichever occurs first, as compared with 5,000 miles or 60 days heretofore. (Amendment 6 to General Order ODT 21.)

Lumber Price Increases

Producers of western pine lumber in California, Oregon, Washington, Idaho, and Montana, who recently raised wages in line with an order from the National War Labor Board, have been authorized by OPA to increase prices \$3 a thousand board feet for six species of lumber in twelve specified grades and sizes. (Amendment 2 to Regulation 94.)

The ceiling price of shook (western pine lumber prepared for assembly into agricultural containers) has been raised \$5.25 a thousand board feet by OPA so as to compensate for NWLB-approved wage increases. (Amendment 5 to Regulation 186.)

Nonmechanical Refrigerators

OPA has established specific dollar-and-cents retail price ceilings on new nonmechanical refrigerators, model-by-model and state-by-state. Three separate sets of ceilings have been set: for mail-order sales by mail-order companies, for sales by in-

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OF COURSE YOU'LL BE USING MAGNESIUM



What a story
this bundle of
test bars tells!

THEY aren't very big, compared to the truckload of Mazlo Magnesium sand castings they're riding with. But the story these test bars tell is mighty important to American Magnesium Corporation, as manufacturers of these castings, and to you as users. On them rests the authority for saying, "These castings have been heat-treated to bring out the best that's in them."

In American Magnesium foundries, test bars representing each batch heat-treated, go into the furnaces with the castings. Those checking samples must test "O.K." before the castings are approved for shipment.

Skilled workmen, employing practices established in more than twenty years of working with magnesium, are responsible for this heat-treating work. Furnace temperatures are automatically and accurately controlled. All furnaces carry an atmosphere of dry sulphur dioxide as protection for the metal surfaces, a practice which American Magnesium Corporation pioneered years ago.

Castings supplied to you by American Magnesium Corporation are heat-treated *right*—another example of the higher quality of Mazlo Magnesium Products. Sales Agent: Aluminum Company of America, 1711 Gulf Bldg., Pittsburgh, Pa.

MAGNESIUM

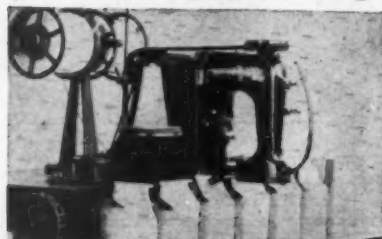


PRODUCTS

AMERICAN MAGNESIUM
CORPORATION

SUBSIDIARY OF ALUMINUM COMPANY OF AMERICA

it's
Easy to Switch
to paper bags



UNION Special Bag Closing Machines make conversion to the use of paper bags for a wide variety of products a practical, economical and advantageous solution to the problem of wartime container shortages. Union Special bag closing equipment is available for producing strong, neat sewed closures on all sizes and types of bags. Where extra strong, sift proof closing is required sewed, tape-bound, filter cord closures can be made.

For complete recommendations, come to "bag closing headquarters." Write today for literature. **UNION SPECIAL MACHINE CO.**, 408 North Franklin Street, Chicago, Ill.

*World's Largest Exclusive Builder
of Industrial Sewing Machines*

**Union Special
FILLED BAG CLOSERS**



American Cyanamid Co. Linden, N. J.	Dunn Woolen Co. Martinsburg, W. Va.	The Pelton & Crane Co. Detroit, Mich.
American Potash & Chemical Corp. Trona, Calif.	Eastern Tool & Mfg. Co. Bloomfield, N. J.	Pittsburgh Lectromelt Furnace Corp. Pittsburgh, Pa.
American Well & Prospecting Co. Corsicana, Tex.	Fort Pitt Bedding Co. Pittsburgh, Pa.	Pittsburgh Metallurgical Co., Inc. Niagara Falls, N. Y.
Atmospheric Nitrogen Corp. Henderson, Ky.	Lebanon Steel Foundry Lebanon, Pa.	Quality Tool & Die Co. Indianapolis, Ind.
Berry Brothers Detroit, Mich.	Lufkin Foundry & Machine Co. Lufkin, Tex.	Radio Speakers, Inc. Chicago, Ill.
Callaway Mills LaGrange, Ga.	Magnetic Pigment Co. Trenton, N. J.	Scanlan-Morris Co. Madison, Wis.
Chambersburg Engineering Co. Chambersburg, Pa.	McKiernan-Terry Corp. Dover, N. J.	West Point Mfg. Co. LaGrange, Ga.
Cincinnati Ball Crank Co. Cincinnati, Ohio	National Malleable & Steel Castings Co. Indianapolis, Ind.	Western Machine Tool Works Holland, Mich.
Deere & Co. Moline, Ill.	Niagara Alkali Co. Niagara Falls, N. Y.	Westinghouse Electric & Mfg. Co. Mansfield, Ohio
Delta Finishing Co. Philadelphia, Pa.	Nickey Brothers, Inc. Memphis, Tenn.	Worcester Pressed Steel Co. Worcester, Mass.
Delta Oil Products Co. Milwaukee, Wis.	Nunnally McCrear Co., Inc. Atlanta, Ga.	Zimmerman Steel Casting Co. Bettendorf, Iowa

Maritime Commission M Awards

The Air Preheater Corp. Wellsville, N. Y.	The Ingalls Iron Works Co., Inc. Birmingham, Ala.	Leatham D. Smith Shipbuilding Co. Sturgeon Bay, Wis.
Air Reduction Co., Inc. New York, N. Y.	Lynchburg Foundry Co. (Two plants)	Todd-Galveston Dry Dock Co. Galveston, Tex.
American Chain & Cable Co., Inc. Reading, Pa.	Martin-Parry Corp. York, Pa.	The Union Metal Mfg. Co. Canton, Ohio
The Bevis Machine Co. Middletown, Ohio	Pennsylvania Range Boiler Co. Philadelphia, Pa.	Watkins, Inc. Wichita, Kan.
Birmingham Tank Co. Birmingham, Ala.	Mr. George G. Sharp New York, N. Y.	Westinghouse Electric & Mfg. Co. Philadelphia, Pa.
General Cable Corp. New York, N. Y.		

(Names of winners of the Army-Navy and Maritime Commission awards for excellence in production announced prior to this new list will be found in previous issues of Business Week. Both War and Navy departments have authorized the Food Distribution Administration to nominate candidates to be considered for the honor by the Army and Navy boards for production awards.)

companies and retail outlets operated by ice companies, and for all sales not covered by the first two classifications. Wholesale ceilings are set at approximately 60% of retail maximums. (Regulation 399.)

WPB has authorized production of an additional 25,975 nonmechanical refrigerators during the quarter ending June 30. (Schedule III to Order L-7-c, as amended.)

Gages Simplified

Simplification and standardization regulations have been imposed on the manufacture of dial pressure gages and regulators by WPB. The order is expected to raise output of these critical items 15%

to 25%. (Schedules IV and V, Order L-272.)

Farm Machinery

In order to obtain the fullest possible use of existing farm machinery, the War Food Administration is planning to requisition idle equipment where necessary, to make it available to farmers who can put it to full use.

Industrial Oils

Three more industrial oils will be placed under allocation control by the War Food Administration on July 1. Red oil, neat's

foot oil, and animal oil (the latter defined as any oil produced from animal fat) are highly important in the metal working, textile, and leather tanning industries, and are also important as substitutes for the critical sperm and olive oils. (Food Distribution Order 53.)

Rubber Goods

OPA has reduced manufacturers' and wholesalers' ceiling prices for mechanical rubber goods to reflect lowered prices of synthetic rubber (Amendment 9 to Regulation 220) and has issued a new order covering most important rubber commodities bought by the government (Regulation 403).

Delivery Curtailment

Distributors have been specifically forbidden by the Office of Defense Transportation from exceeding the number of deliveries permitted under Amendment 3 to General Order ODT 17 by employing for-hire trucks. ODT emphasized that delivery frequency, and not the type of carrier used, must be the determining factor.

Typewriters

Persons now renting Class A typewriters (standard machines made since 1934) from members of the trade, primarily dealers, must either purchase them or return them to their owners by June 30. Purpose of the order is to make more Class A machines available for government purchase. (Amendment 3 to Ration Order 4A.)

Liquor Prices

All owners of brands of domestic distilled spirits must file their March, 1942, price lists with OPA by July 9. On brands that have been put on the market since March, 1942, ceiling prices must be filed together with all information as to how these ceilings were determined. (Amendment 6 to Regulation 193.)

Frozen Foods in Bulk

Frozen fruits and vegetables in containers of ten pounds or more, which have been ration free up to now, have been placed under control of the processed foods rationing program by OPA. Consumers of the bulk sizes must register as industrial users under the program. (Amendment 36 to Ration Order 15.)

Apricots

The War Food Administration has established maximum prices to growers for the 1943 crop of dried and canning apricots almost 50% higher than 1942 ceilings to compensate for increased production and harvesting costs. Since the entire 1943 crop will be purchased by government agencies under reservation orders, the cost of living will not be affected.

Coffee

Since different roasts of coffee vary considerably in the amount of weight lost in roasting, OPA has instructed coffee roasters to account for their use of green coffee



SIX, even five years ago, many people said the railroads were "through" . . . "washed-up" . . . "an outmoded form of transportation". Speeches were made about it. "The Old Gray Mare isn't the iron horse she used to be," they said.

Railroad men thought differently. They said little. But they made plans for the future—spent billions for improved operation, equipment, service. These are some of the reasons why this supposedly decrepit nag has been able to haul the greatest traffic load in all railway history—and why the job has been done without confusion or even getting the "heaves". Today, the American railroads are moving one and one-third million tons of freight a mile every minute, starting a loaded freight train every four seconds, moving our fighting men at the rate of more than a million and a half a month.

The Quartermaster General has said that the American railroads are doing "the vital war job."

Yes, the railroads were READY, WILLING and KNEW HOW.

The Norfolk and Western Railway is proud to have a share in this big and vital achievement.

NORFOLK and WESTERN

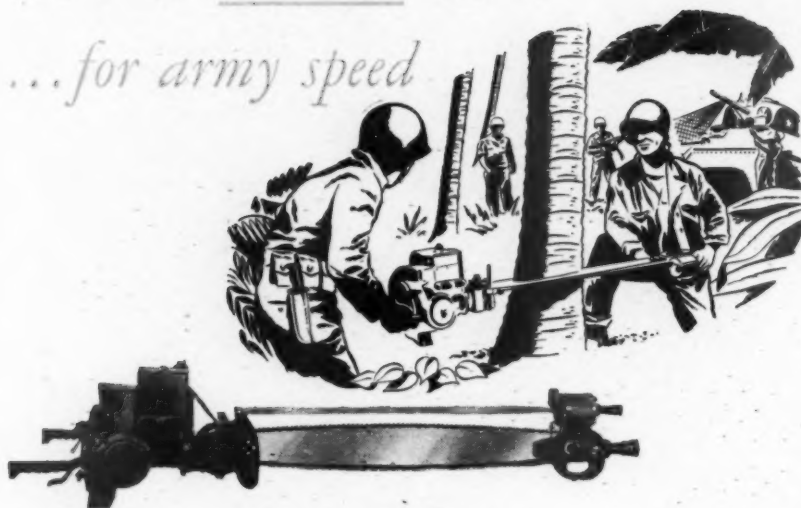
Railway

ONE OF AMERICA'S RAILROADS
... ALL UNITED FOR VICTORY



It's a chain saw

...for army speed



UNCLE SAM wanted a dependable gasoline-driven chain saw—built to strict specifications on performance. The saw was urgently needed by the U. S. Army Engineers.

Disston took on the job of producing such a saw—and delivered the goods! This saw will do the work of 20 men—will cut through a 2-foot tree trunk in 17 seconds! In order to speed the lumber industry's tremendous production program, Disston is prepared to manufacture this gasoline-driven chain saw in 4, 5 and 6 foot capacities... all powered with an 11 H.P. Mercury engine.

This significant Disston achievement is in line with the craftsmanship that produces Disston Steel and such standard tools as Disston wood and metal cutting saws, files, hack saw blades and machine knives. Moreover, to help assure their effective use, Disston provides free instruction cards on 34 types of cutting tools.

Better use of working-time and tools will help speed the day of Victory. For details about Disston products and for the free instruction cards, write Henry Disston & Sons, Inc., 628 Tacony, Philadelphia, Pa., U. S. A.

Disston craftsmanship builds stamina and dependability in the **POWER CHAIN SAWS** supplied to the U. S. Armed Forces... Other Disston precision products made for war service include Meat, Bacon and Bread Machine Slicing Knives for the armed forces; Powder Knives for the manufacture of explosives; Clutch Plates for airplane superchargers, and Carboloy-tipped Cutters for milling the fins on airplane cylinder heads.



DISSTON

ESTABLISHED 1900



REAL U.S. PAT. OFF.

Conserve Man-Minutes



and help win the war

on the basis of actual shrinkage, rather than by the application of an average weight loss of 16%, as formerly required. (Amendment 36 to Ration Order 12.)

Meat

All quota slaughterers of meat animals are required to stamp each wholesale cut of meat with a city, county, state, or federal inspection number. Numbers may be obtained from the War Food Administration. (Meat Restriction Order 1, as amended.)

Food Distribution Order 27.1 requires all local slaughterers, and all butchers who slaughter more than 4,000 lb., live weight, in any one month, to make monthly reports of their slaughter operations to the regional offices of the Food Distribution Administration.

Other Priority Actions

Alloy steel studs and headed bolts for high-temperature service are added to the list of critical common components subject to scheduling control by Amendment 1 to Order M-293... Schedules II and III to Order L-216 impose simplification and standardization regulations on the production of wrenches, pliers, and nippers... Schedule IV to Order L-216 cuts the number of sizes of rotary files that may be produced from 380 to 70... Order L-292 establishes control over production and distribution of processing machinery, both new and used, for food, beverages, and tobacco... Manufacturers' quotas for the production of garbage and ash cans are revised upward by Order L-30-a, as amended... Order M-321 places citric acid under allocation control, effective July 1... The War Food Administration has prohibited use of tung oil as a base for cargo ship paints after July 1... Amendment 1 to Food Distribution Regulation 1 broadens the definition of "foods" for which priorities may be issued by the War Food Administration to include tobacco, soap, and all fats and oils and their derivatives.

Other Price Actions

Cracking catalysts used in the manufacture of aviation gasoline are exempted from price control by Amendment 11 to Supplementary Regulation 1... Revised maximum prices for recapping all sizes of farm tractor tires with Grade F camelback and for recapping truck and bus tires, sizes 8.25-20 and larger, with Grade A camelback, are set by Amendment 2 to Revised Schedule 66... Ceiling prices for cotton bagging used in place of jute for covering cotton bales (BW-Feb.6'43,p22) are set by Amendment 19 to Regulation 118... OPA will set ceiling prices for the 1943 pack of sweet cherries high enough to permit processors to pay growers an average \$40 a ton increase over 1942 levels... Order 379 under Regulation 188 sets dollar-and-cents ceilings on three war model pressure canners at all distribution levels... Amendment 34 to Revised Schedule 53 extends price control to intermediate grades of refined cottonseed, peanut, and soybean oil... Amendment 176 to Supplementary Regulation 14 sets specific cents-per-barrel storage and handling charges for alcohol belonging to Defense Supplies Corp.



"Easy on the brake!... a jolt might kill somebody!"

DID you walk under a ton of something today out in the plant or yard where you work? A ton of something swinging on wire rope from a derrick or moving crane?

You probably thought nothing of it—but the operator did, and plenty. He knows the boss buys only the safest of wire rope for this important service and has it correctly installed, inspected and maintained.

But the human element is important, too. Smooth handling completes the safety cycle. That is why in training new operators the veterans say, "Easy on the brake—jerking the load might snap something."

For safe wire rope, we recommend Tru-Lay Preformed made by our American Cable Division, and Lay-Set Preformed made by the Hazard Division.

For safe practice in handling wire rope, we suggest

following the recommendations of the National Safety Council.

Wire rope is one of many products we make for Industry, Transportation, and Agriculture, essential in peace, vital in war.

The American Chain & Cable Company is happy to cooperate with the National Safety Council in its nation-wide campaign to "Save Manpower for Warpower"—which is now being conducted at the request of President Roosevelt.

Some of the More Important National Safety Council Suggestions for Safe Operation of Wire Rope

1. Let new rope stretch in use before giving it full loads.
2. Never start to lift a load suddenly.
3. Never jam on brakes—stop gradually.
4. Don't let derrick rope twist.
5. Don't let rope run dry—lubricate regularly.
6. Replace sheaves that wobble or pinch the wire rope.
7. Avoid slack rope on drum—crushing of rope results.



In Business for Your Safety

AMERICAN CHAIN & CABLE COMPANY, Inc.

BRIDGEPORT, CONNECTICUT In Canada—Dominion Chain Company, Ltd. • In England—The Parsons Chain Company, Ltd., and British Wire Products, Ltd.
Aircraft Controls, American Chain, American Cable Wire Rope, Campbell Cutting Machines, Ford Chain Blocks, Hazard Wire Rope, Manley
Garage Equipment, Owen Springs, Page Fence and Welding Wire, Reading Castings, Reading-Pratt & Cady Valves, Wright Hoists and Cranes

AGRICULTURE

Big Grain Co-op

Farmers Union's concern grows into largest handler of wheat in country—and officials gain prestige in Washington.

Largest grain handler in the country is the Farmers Union Grain Terminal Assn. since its purchase, a few days ago, of the Brown Grain Co. and the St. Anthony & Dakota Elevator Co. Started in 1938 with \$30,000 capital and \$300,000 borrowed money, this grain cooperative has grown to assets approximating \$13,000,000.

• **Political Significance**—And this growth may have a good deal of significance outside the grain trade and the field of cooperative marketing. The Grain Terminal Assn., as its name implies, is one of the many co-ops sponsored by the Farmers Union, smallest but most militant of the farm organizations. Officials of Farmers Union aren't as close to the War Food Administration now that it is headed by Chester C. Davis as when Secretary of Agriculture Claude R. Wickard was boss. So, if a husky Grain Terminal Assn. can increase their weight in Washington, the Farmers Union boys are all in favor of growth.

General manager of the Grain Terminal Assn. is M. W. Thatcher, former public accountant, for seven years front



Behind the Farmers Union throne stands M. W. Thatcher, former Washington liaison man and general manager of the organization's Grain Terminal Assn., largest handler of grain in the nation.

man for the Farmers Union in Washington, and long a co-op advocate within the organization. Thatcher, in fact, is considered by many the power behind the throne in Farmers Union; in any event, he sees eye-to-eye with big, smiling, 41-year-old James George Patton, the Coloradoan who has been Farmers Union president since 1940.

• **Out to Save FSA**—Leadership of the organization, on the political side, has been strongly New Deal. It hasn't gone right down the line for the Administration's farm policy, but it has gained a reputation for support of the more radical experiments, particularly those designed to help the small farmer. At the moment, it is fighting tooth and nail for restoration of the Farm Security Administration's appropriation eliminated in the House. (FSA's biggest program is aiding tenants or sharecroppers to become owners.)

In its political battles, the Farmers Union persistently tangles with the much larger American Farm Bureau Federation. F. U., with a membership made up largely of small farmers, considers itself the champion of the little fellow and charges staunchly that the federation represents the big boys and absentee landlords.

• **One the Union Doesn't Like**—Typical battleground is the Agricultural Adjustment Administration program—one of the New Deal-sponsored plans that the Farmers Union won't stomach. Farmers Union complaint is that soil conservation and benefit payments tend to help the big boys much more than the little fellows.

Back in the days when Vice-President Henry A. Wallace was secretary, the Farm Bureau Federation was widely termed a subsidiary of the Agriculture Dept.; over the last two years, not a few observers have insisted that F. U. was a company union of the Administration. Patton doesn't think Farmers Union is that close to the New Dealers, but President Roosevelt and his farm advisers have pushed the Coloradoan forward when other farm groups kicked over the traces.

• **Some Points at Issue**—It's Patton's firm conviction that the more radical ventures like giving government money to tenant farmers to buy land have accomplished social good and are now yielding food and fiber for the war effort. He raps the Farm Bureau for its affiliation with certain federal agencies, denounces the alleged recruiting of members for the Farm Bureau by Dept. of Agriculture extension service agents, and charges the land-grant colleges and the extension agents with neglecting small farmers.



As the farm organizations jockey for position in Washington, James G. Patton, president of the Farmers Union, smallest but most militant group of the lot, is basking in Administration favor.

He labels Farm Bureau leaders Edward O'Neal and Earl Smith fascists and lumps in the same category John L. Lewis, whose catchall District 50 of the United Mine Workers has competed with the Farmers Union in organizing dairy farmers and others. In general, however, F. U. is friendly to organized labor. (Efforts to get other farm organizations into a farm-labor coalition have always failed because of basic differences in viewpoints and objectives.)

• **Joins Insurance Co-op**—Patton was born into a Farmers Union family, worked his way through Western State College at Gunnison, Colo., and ran his own farm until he got into the managerial side of the union through one of the many co-ops that now play such an important place in the organization's affairs. He ran a cooperative insurance company, taking for salary whatever the company could afford to give him.

The union has suffered its vicissitudes since it was founded by a group of farmers in the little town of Point, Tex., in 1902. Some of its early co-ops failed. It was almost burned up in the political prairie fire set by Arthur Townley and the Nonpartisan League; later it had the satisfaction of picking up the pieces into which the Townley organization broke. Now it has a rule against direct participation in elections.

• **Room to Grow**—The Farmers Union activities are run from an office building standing on an eleven-acre tract just outside Denver. The union hopes to spread its marketing operations until goods flow direct from farm to city consumers' co-ops, completely eliminating intermediate charges and profits.

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These Sentries Also Serve

"Submarine on the starboard bow!" A whole ship galvanized into action. Blinker lights flash from ship to ship in the convoy of priceless materials of war.

Deck guns sweep into action and the crew prepares depth bombs for a royal welcome to Herr Schicklgruber's emissaries.

The engine room gets the signal for all the speed her straining diesels can squeeze out, and the battle is on. But below deck there are sentries, too—guarding these vital engines, permitting the use of every ounce of power with safety. These sentries are inanimate assemblies of precision equipment—Sylphon Diesel Engine Controls that prevent engine overheating, warn of any serious drop in lubricating oil pressure.

Sylphon Marine Controls for fighting and commercial ships—for diesel and steam ships—are many, varied. They include the regulation of heating, ventilating and

refrigeration; fresh water heaters; fuel oil heaters; lubricating oil temperatures; diesel engines; de-superheaters; steam jet ejector condensers, etc., etc.

These services, the importance of which is only emphasized by the war effort, will continue to be "well-manned" by Sylphon Equipment in the great new American Merchant Marine of the post-war era.



Sylphon Products include: *Aircraft Controls*—Engine Thermostats, Oil Cooler Thermostats, Fuel Pressure Regulating Valves; Parts for Supercharger Controls, Carburetor Controls, Fuel Injector Controls; *Marine Controls*—for the Regulation of Fresh Water Heaters, Fuel Oil Heaters, Lubricating Oil Temperatures, Diesel Engines, De-superheaters, Steam Jet Ejector Condensers; *Automotive Controls*—Engine Temperature Controls for Tanks and Other Military Vehicles, Trucks and Passenger Cars; *Refrigeration Controls*—Thermostat Mechanisms for Domestic and Commercial Refrigerators; *Industrial Controls*—Temperature, Pressure and Vacuum Controls for Industrial Processes; *Air Conditioning Controls*—for Buildings, Ships, Railroad Trains, Aircraft.



THE FULTON

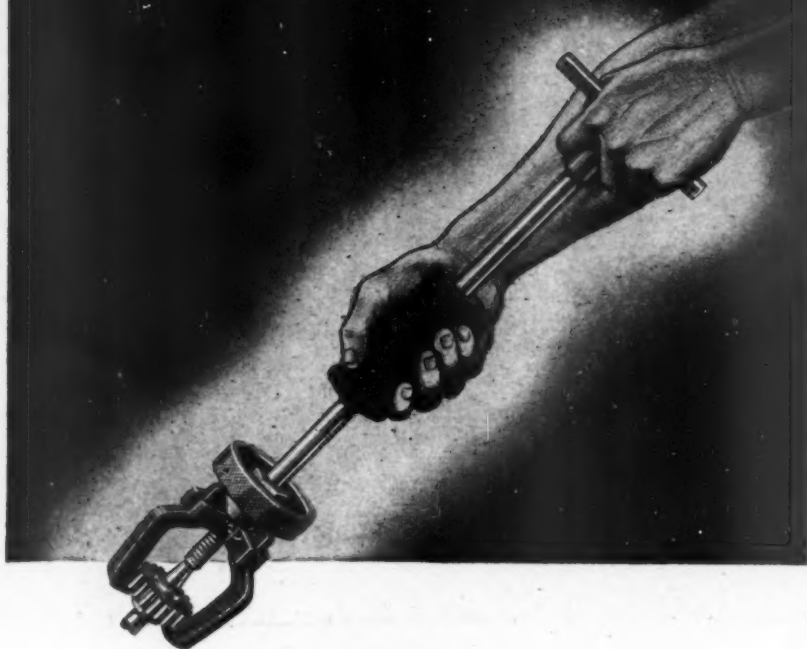
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SYLPHON CO.

TENNESSEE

Temperature Controls... Bellows... Bellows Assemblies

Pullers that PULL!



in the *Complete* Plomb Line

Designed to do a job, Puller No. 4056—a popular member of the Plomb puller family—pulls quickly, efficiently, safely. Together with many other fine hand tools in the famous Plomb Line, it is helping to build better weapons—faster. If you need hand tools of highest quality to speed your war work, see your Plomb dealer. There is one near you.

To supply the demand for Plomb Tools in war industries, 36 plants now make them in ever increasing volume. This permits a two-fold service. If you need specially designed tools for hard-to-get-at war production problems, in quantity, consult the Plomb Tools Contracting Company Division. For regular tools, contact the Plomb dealer in your locality.

▽ PLOMB ▽



PLOMB TOOL COMPANY
LOS ANGELES ▽ CALIFORNIA

and the optimists talk of one day handling a big slice of the nation's co-operative processing and retailing. When that day comes, they'll want the eleven acres for administrative offices and warehouses.

Cooperative ventures include, in addition to grain and insurance, an oil refinery with a capacity of 6,000 barrels of crude daily, organizations buying and selling farm implements and supplies from coast to coast, others supplying electricity and medical care, and even the country's first co-op hospital. Volume of business is estimated at \$400,000,000 a year.

• **Scope of Grain Business**—The Farmers Union Grain Terminal Assn., with the purchase of the Brown Grain Co., a commission house, and the St. Anthony & Dakota Elevator Co. with 135 elevators and 38 lumber yards, now expects to handle 40% of the durum wheat grown in the country and an appreciable fraction of other types. All told, it has 450 elevators, including the 4,500,000-bushel terminal elevator built in 1941 at Superior, Wis., and an additional 5,500,000 bushels of terminal capacity.

St. Paul-Minneapolis observers were quick to read the political motive into Thatcher's present expansion. Grain circles are convinced he paid James F. Bell (president of General Mills) and associates a pretty fancy price for the Brown company. Most of the concern's traders had left, according to these sources, taking their clients to competitors; there seemed little assurance that other business would stay on the books. • **\$2,700,000 Strategy**—"Why, then, should Thatcher be paying a price of \$2,700,000, less \$360,000 for assumed liabilities, unless he is determined to become so large that the food boys in Washington will just have to listen to him?" grain men ask.

Peachless Georgia

Spring freezes nipped the buds, and this year's crop may be less than 50% of normal, but good prices are expected.

Georgia, which for many years has advertised itself as "The Peach State," stands to lose that distinction—temporarily, at least. While not likely to lose its ranking as the nation's No. 2 peach-producing state, this year's crop hardly will be worth bragging about. As in all other southeastern fruit-growing states, Georgia's current crop was hard hit by frosts and freezes in March and April. • **Top Estimate Is 50%**—Just how small the 1943 crop will be, nobody seems to know exactly. Estimates from agricultural experts range from 16% to

If Aladdin Were Twins-



He Could Not Equal the Miracles of Industrial Synergism

Yes, industrial synergism is the name for it. Where Aladdin rubbed his lamp to evoke the fantasies of legend, men now rub ideas against ideas to create realities far in excess of the sum total of the ideas expressed. The stimulus of men thinking together—defined as synergism—produces the modern magic of progress.

New processes! New methods! New materials! Finer products!

Synergistic thinking is no classroom abstraction. It is down-to-earth mental effort, across a desk, around a machine, in the field—practiced by men whose minds are alert to ideas. Buyer and seller are finding that its application yields rich harvests.

In our sphere of chemical production Atlas has a growing record of results produced by synergistic thinking with customers. A processing material that solved the greasy emollient problem in cosmetics; a new insecticide that expands the value of rotenone in crop protection; a blasting cap that increased the safety factor in blasting—these are but three examples of how varied one company's accomplishments in synergistic thinking may be.

We would like to cooperate with you in synergistic thinking about any problems of yours that lie within our scope. Consult us.



ATLAS

POWDER COMPANY
WILMINGTON, DELAWARE
Offices in Principal Cities

**Industrial Explosives • Industrial Finishes • Coated Fabrics • Acids
Activated Carbons • Industrial Chemicals • Ordnance Material**

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FARMERS IN MIDDIES

To its official sea and air successes, the Navy can add an unofficial victory on the farm front. When potatoes threatened to rot in Baldwin County, Ala., some 150 sailors from Pensacola volunteered to harvest the crop (above). Meanwhile, their families snapped at the mere mention of a potato. New York's Hearn department store demonstrated this reaction last week when it had to rent two special storerooms to dispose of a sudden windfall in spuds. Overflow crowds (left) jammed both.

50% of normal. On one point they all agree, however, and that is that 1943's yield will be the smallest in many years, and perhaps in the history of the industry.

W. C. Bewley, general manager of the Georgia Peach Growers' Exchange of Macon, Ga., is among the most pessimistic. In a statement estimating the crop at 16% of normal, he said forecasts set the total number of carloads shipped from the state at 2,195 this season, compared with a normal movement of 12,500 carloads. He stated the demand will greatly exceed the supply everywhere.

● **One-Third Last Year's**—Dr. F. F. Cowart of the Georgia Experiment Station is a bit more hopeful. He estimates the Georgia peach production at about 2,500,000 bu., a production of about one-third of last year's crop and about half of the yearly average for the preceding ten-year period. The freezes killed at least 50% of the flower buds on most varieties.

The Atlanta, Birmingham & Coast Railroad, which for many years has promoted Georgia agricultural developments in general and tobacco and peaches in particular, throws more light on the dark but nonetheless confused outlook. A.B. & C. agricultural experts

estimate only about 300 carloads from its Birmingham division, in the Pine Valley section, compared with its normal movement of some 2,000 cars.

● **Belt Moves North**—Originally, Georgia's peach belt was located in the far southern part of the state, centering around Fort Valley, in Peach County. Some 20 years ago, the peach belt started moving northward until it reached Meriwether County, where President Roosevelt maintains his "other" home.

While the new peach belt has been growing steadily in the last decade, the old peach belt has been building the last few years by planting new trees. Damaging weather this year is bringing the old peach belt back to the forefront. The new belt was hardest hit. Usually 75% of the state's crop originates in the producing area north of Macon.

● **Proportion Down**—Second only to California (most of whose crop is canned), Georgia normally produces approximately one-third of the peaches grown in ten southern states. This year, however, it probably will represent only about one-fourth.

For the ten-year period 1930-1939, Georgia produced an average of 5,177,000 bu. a year. The state's peak year was

1941, when 7,100,000 bu. were grown. Last year, when prices were exceptionally high, Georgia's crop amounted to 6,177,000 bu., with South Carolina's 3,500,000 bu. being its closest competition.

● **Good Prices Expected**—The federal marketing agreement, inaugurated last year and in effect again this season, will prohibit the shipment of immature peaches and also will govern the quality to some extent. Under these conditions, good prices are in prospect for the abbreviated 1943 crop.

Meanwhile, Georgia peaches are beginning to move. The first shipment consisting of seven half-bushel baskets went to Atlanta about two weeks ago. They brought \$5 a basket, which is about five times as much as they would bring normally. First peaches always bring high premium prices, but as shipments increase prices gradually drop.

Milk Rations Seen

Record production so far this year has helped to avert shortage, but scarcity of feed and big demand bode ill.

Total milk production for January, February, March, and April of this year was the largest on record, but War Food Administration officials can find nothing in the dairy picture that warrants optimism. Bad weather, the tight feed situation (page 17), and ever-increasing domestic and foreign demand for dairy products probably will mean rationing of fluid milk on a regional basis and strict conservation measures on all nonrationed dairy products.

● **Pastures Inundated**—May was cold and the first week of June was so rainy that many farmers were unable to turn their cows out into pastures where the fresh diet improves the output. The Dept. of Agriculture frankly expects the tight feed situation to impede milk production for the last half of the year.

Production of fluid milk is the key to the whole dairy situation. It is used by the consumer as a food itself, and it is used by the dairy industry as a raw material for further processing into other dairy products such as butter, cream, dried skim milk, cheese, and ice cream. Some of these, in turn, are used as raw materials for other food products, and the byproduct, casein, has wide industrial use.

● **Control of Flow Indicated**—Even if production of fluid milk were kept at levels approximating last year's, increased demand would make the supply inadequate. In addition, if production is maintained at the same level, it will mean that the only avenue of control left to government men is to shift patterns of distribution—force more raw

materials than normal into the production of the most-needed end products.

Due to butter and cheese rationing, the Dept. of Agriculture estimates that total 1943 civilian consumption of dairy products, on a butterfat basis, will be 10% below last year's, but total civilian consumption on a nonfat solids basis may be slightly above that of last year's all-time record.

• **Fluid Milk in Demand**—Rising consumer incomes, rationing of coffee, and shortages of soft drinks have pushed up civilian demand for fluid milk for direct consumption. Against the rising income, prices have been held to the point where Food Administration men describe it as the cheapest of all foods. They estimate 1943 civilian demand for fluid milk may run as high as 20% to 25% above 1941 consumption, and 10% to 15% above 1942.

Soldiers also drink a lot of milk. The Army recently contracted for shipment of five carloads from the Chicago area to southern camps. Normally fluid milk is not transported from that milk market to points below the Mason-Dixon line.

• **Changes in Pattern**—Aside from increased consumer demands, best examples of increased government requirements for manufactured dairy products are: (1) Normal civilian consumption of butter is 16 pounds per capita, but the Army is buying at the rate of 40 pounds; (2) dried skim milk bulks large in almost every calculation of Lend-Lease Administration and Office of Foreign Relief & Rehabilitation Operations needs.

As an example of how this dried skim milk will be used, OFRRO is going in heavily for specially prepared dehydrated soups and porridges, both containing dry milk solids. Generally speaking, lend-lease and foreign relief requirements are light on butter but heavy on cheese and dried and evaporated milk.

• **Reduction for Ice Cream**—There is no visible ceiling on the amount of ice cream that could be sold this year if the raw materials were available, but the industry is cut back to 65% of total milk solids used during the corresponding period of last year. As a luxury product, ice cream always will be vulnerable, but Food Administration men will try to let the industry proceed on a current basis as long as possible.

Production of cheese in the last five normal years averaged 500 to 600 million pounds annually; last year it hit 900 million pounds; this year, might drop back to 800 million pounds. Even with rationing, government men don't believe all requirements can be met. England has asked for more, but lend-lease has cut down its current offering figure.

• **Baby-Food Problem**—Evaporated and condensed milk were rationed because demand was running behind supply and because use as baby food meant that an

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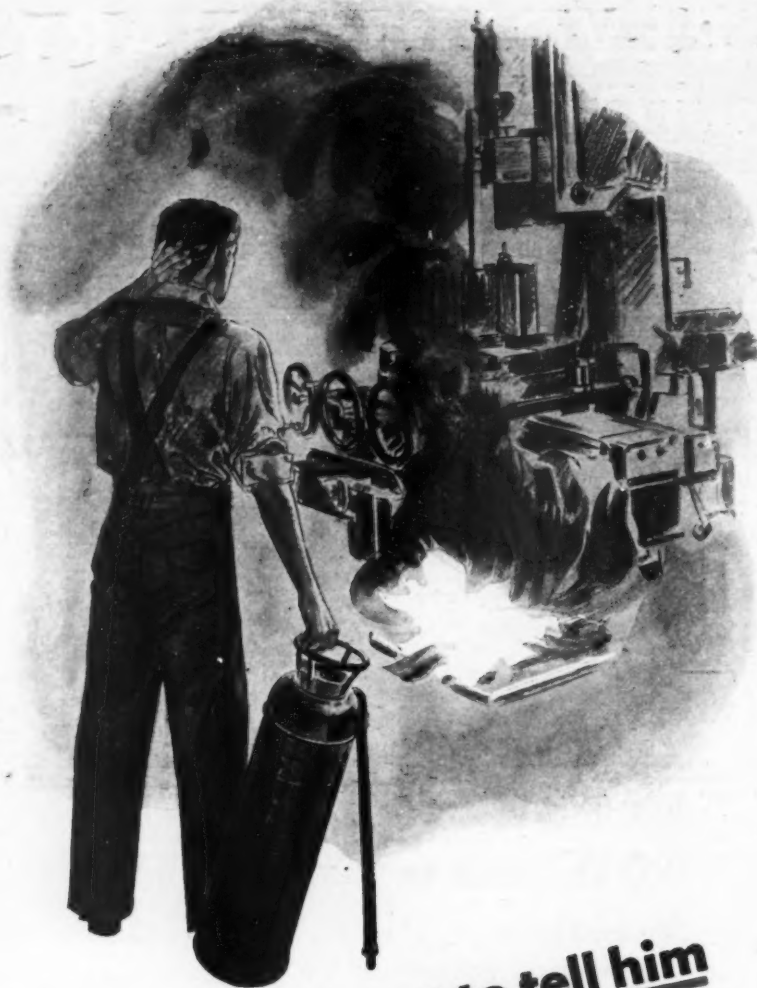
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even flow had to be protected at all costs. Normal U. S. production of evaporated runs around 50 million cases; last year it ran 82 to 83 million. A reduction in production of 20% this year is expected to bring it down to 65 million. With the Army buying 25 million cases, and lend-lease and foreign relief wanting large amounts, only 30 to 35 million or three-fifths of normal consumption will be left for civilians.

Powdered milk is probably the most critical segment of the dairy situation. Total production of whole milk powder has jumped from 20 to 131 million pounds. Production of dry skim will increase from 322 million pounds in 1940 to an estimated 550 million this year. The Food Administration is trying to get from 30 to 50 new plants in operation this year, but construction is lagging.

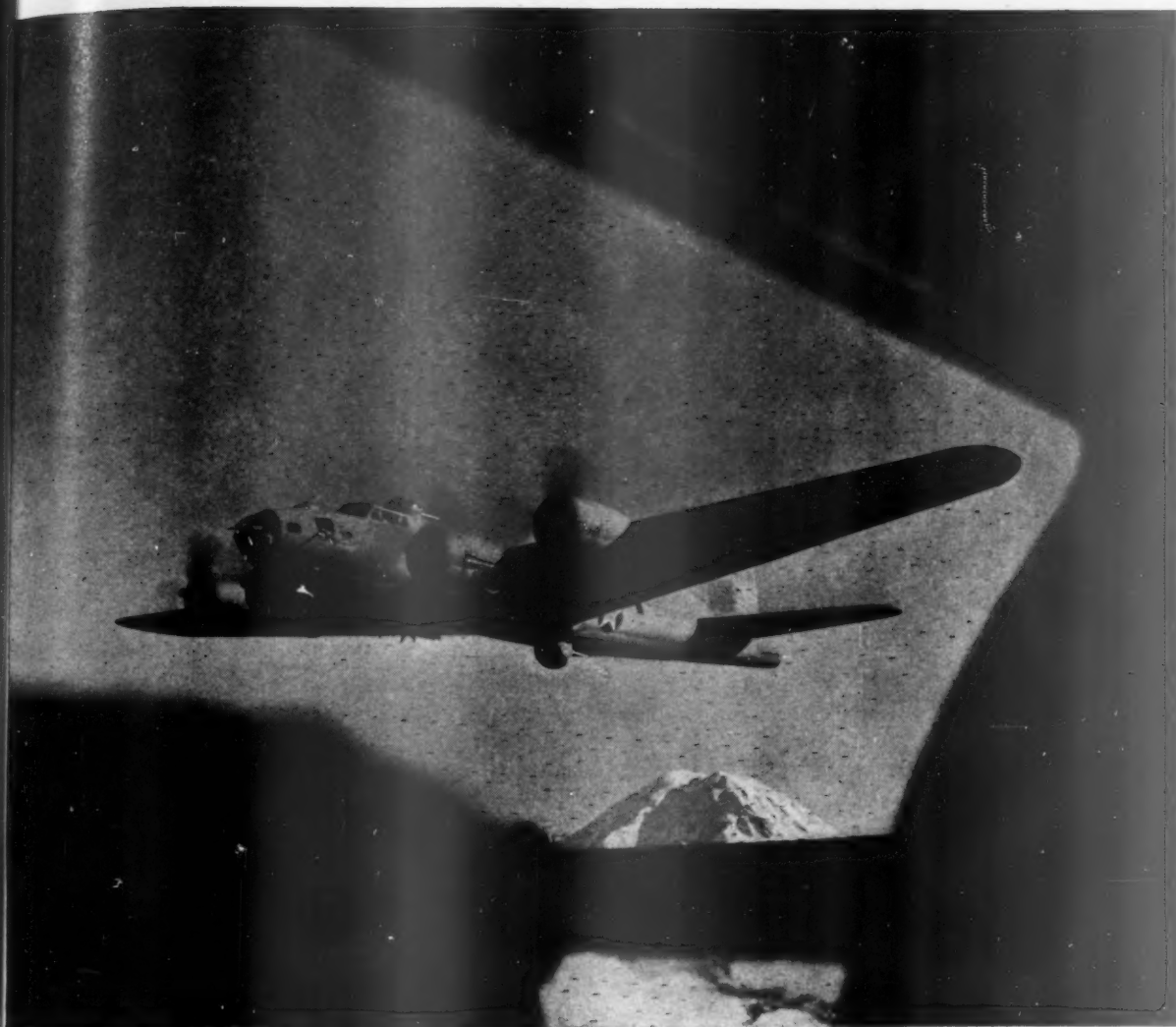
● **Farmers Hold Back**—Even if the Food Administration gets all the new plants it wants, the problem of getting fluid skim milk to feed the driers is basic. Many farmers are skimming their milk, sending the cream to the creamery, and feeding the skim milk to poultry and hogs.

A Food Administration official describes the situation as one in which some farmers are keeping dairy cows to support their hogs. With the farmer finding it difficult to get feedstuffs from his dealer, it will become increasingly



FOOD FOR FIGHTERS

Preparing for its world-wide offensive, the Army is amassing huge stores of fighting foods for fighting men. At the Chicago Quartermaster's depot, the new field ration KS (above) is an important item. Each ration contains a day's food—including canned meat, biscuits, malted milk, dextrose tablets, soluble coffee, lemon juice powder, bouillon, cigarettes, and chewing gum.



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You're looking through the waist gunner's window of a Boeing Flying Fortress*... at another Fortress on its test run near Seattle. Peaceful enough here, it nonetheless represents 32 tons of the most deadly fighting mechanism ever devised.

The Boeing Fortress now has a maximum bomb capacity of more than 10 tons... equaling or exceeding that of any other bomber, Allied or Axis, now in service.

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To carry through such a project meant years of costly research. It meant continuing advancement from one stage to another, including long experimentation at stratosphere altitudes where few men

had ever been. It meant utilizing the skills of many hundreds of engineers representing more than 25 different engineering fields.

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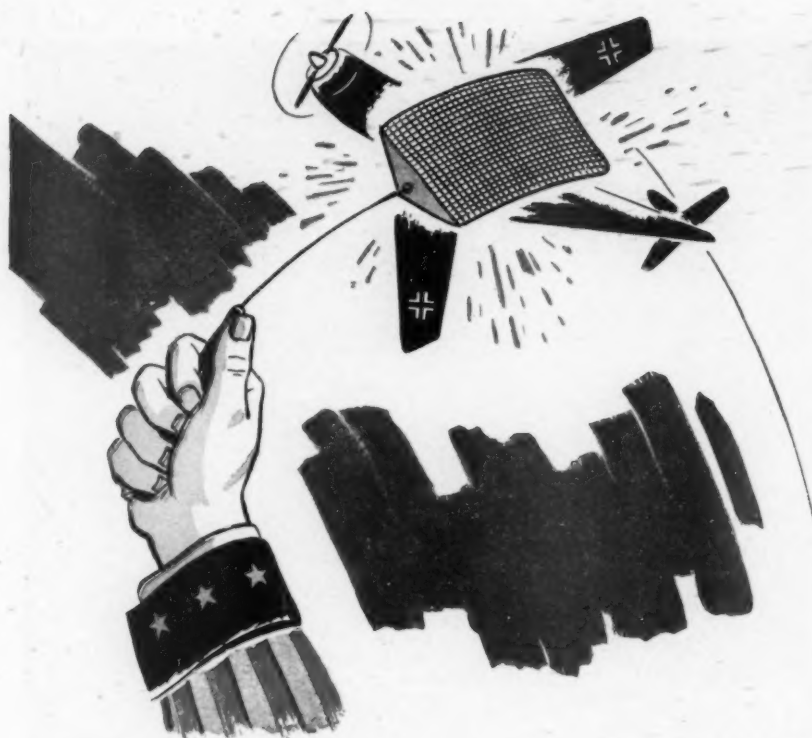
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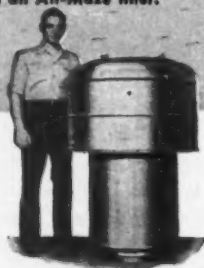
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hard to get him to send his fluid skim milk to the drying plant.

Food Distribution Administrator Roy Hendrickson believes we could use a billion pounds more dry skim milk this year than will be produced. Nutritionists regard it as one of the best protective foods and would like to see its use expanded in every direction. Producers have been ordered to set aside 75% of their total spray and roller process skim milk production for the government.

• **Spreading the Butter**—Because it is rationed, it is possible for the government to work on an even flow of butter into civilian channels. Creameries are required to set aside 50% of production during the peak summer months to take care of the period from August to November when production is low.

Creamery butter production is expected to reach a seasonal peak of 200 million pounds in June and decline to a low of 100 million in November. Total production for the year is expected to reach 1,800 million pounds, just about equal to recent years. Supplies for civilians, however, will be only 1,300 million pounds against 1,750 million pounds normally. With the addition of 400 million pounds of country butter, civilian supplies should total 85% of normal years.

• **Cheese Also Will Be Stored**—A similar effort to level out distribution of cheese requires that cheddar producers set aside 70% of their production for the summer. Cheese production is expected to reach its peak of 100 million pounds in June and fall off to a low of 45 million pounds in November.


Of the estimated 800-million-pound cheddar production for 1943, civilians will get 420 million pounds as against 575 million in normal years. Adding 200 million pounds of other type cheeses brings the civilian supply to about 80% of normal.

PECTIN FOR ALL

Enough pectin for civilian and lend-lease uses will be produced in 1943 if the 6,000,000-lb. estimate meets no unforeseen obstacles. This is about 1,000,000 lb. more than was made last year, so there should be plenty for all jelly and jam makers, even though the government will take about half of it for lend-lease.

Government requirements haven't been increased but are fixed at 2,300,000 lb. Prices that were from 60¢ to 65¢ a pound two years ago are now 80¢ to 85¢. One new combination citrus juice and pectin plant has been completed at Dunedin, Fla., and another is under construction in Hollywood, Calif.

Pectin is a byproduct of fruit juice extraction and vinegar manufacture. It is used by the confection, baking, and food dehydration industries as well as by home jelly makers.



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THE WAR—AND BUSINESS ABROAD

Invasion to Nip Civilians

Germans' thoroughness in scouring lost territory has been demonstrated in Russia; Allied armies will have to replace rail, power, farm, and many other types of equipment.

Invasion of Europe will create tremendous new problems for American war economy. In short, there are grave lessons to be learned from Russian experience in Soviet lands regained.

There has been much talk about scorched earth. But it is one thing to scorch your own land as you are driven from it, quite another for a retiring enemy to devastate conquered territory.

- **Controlling Factors**—Conditions within Europe after invasion will vary with the nationality of the region, the degree of German control, and the swiftness of Allied progress, but wherever armies move across the land, the earth will be severely scorched. Where that land is German-defended, this scorching may approximate 100%.

Where the land is devastated, the occupying armies will require, for their own safety and operational efficiency, vast amounts of matériel hitherto seldom recognized as falling under the head of "military supply"—power facilities, complete community sanitation equipment, railroad track, stock, switches, and signal devices, printing presses, water pumps, pipe, and laundry equipment.

- **Regional Differences**—In the Balkans, a scorched-earth policy may be of little consequence since the geography of the area is itself the best and cheapest defensive weapon. Food, clothing, and agricultural implements will top the list of needs in this theater.

In Italy, the risk of another Tunisian debacle may dictate a German retreat to the east of the Apennines, or even to the lower Alps. Most experts doubt German ability to sear the Italian landscape to any considerable degree, and chief immediate needs of this area will likewise be foodstuffs and farm supplies.

But Norway, France, and the Low Countries present totally different opportunities for Axis defense in depth, and step-by-step destruction of every evidence of civilization is expected. Already coastal areas have been "treated" by German engineers.

- **Russia's Experience**—It took Russian experiences to drive home the differences between the effects of scorched earth upon conquering armies and upon armies recapturing lost territories and populations. And a partial key to the new demands upon the war economy is

provided by shifts in priority ranking of goods ordered under lend-lease by the Soviet Union.

When Germany swept across Russia, between 30,000,000 and 50,000,000 people were overrun, but military operations of the Wehrmacht were protected—except from guerrilla forays—by the simple expedient of "concentrating" the people outside communication channels, leaving them to fend for themselves. Disease and death ran rampant.

- **Civilians Require Help**—When the Red Army hammered off the long Caucasian salient and dented the lines on the Donets and central front last winter, millions of people swarmed into army camps begging for food, medical care, and farm implements. Recaptured cities posed even greater problems with their demands for heavy production items.

Laundry and delousing equipment jumped into high rank on Russian priorities; agricultural equipment and food received greater emphasis.

The shock which jolted American experts into consultation and surmise,

however, was Russian cancellation of tank and other munitions orders in the U. S. and expanded demands for so-called civilian items. Figuratively speaking, bathtubs had become strategically as important as planes on the Russian front.

- **Many Involved**—Conceivably, several government offices should be concerned with this problem: the Office of Civilian Requirements, the Lend-Lease Administration, the Office of Foreign Relief and Rehabilitation Operations, WPB, and all branches of the armed forces.

Briefly, the Army considers the problem real but temporarily unapproachable; OCR recognizes Army jurisdiction, denies any hint of expanding demands, and insists civilian supply must not be suddenly invaded; Lend-Lease views the problem as beyond its responsibility; OFRRO lacks authority to anticipate military needs, expects to inherit major parts of its requirements from the Army; WPB must wait until claimant agencies arrive with specific demands.

If Allied armies do move into scorched earth, the American economy will be acutely affected. The impact may explode the neatly dovetailed mechanisms now channeling war orders through priority tangles to factories, to ports, and overseas.

- **What Might Happen**—Assume, for example, that a recent Soviet request for about \$4,000,000 of parts for Model 15-30 International Harvester tractors had been filled. Only a part of this order could be found in stock, and Harvesters would have had to resume production after a ten-year layoff. Assume, also, that



MOSCOW UNDERGROUND

Muscovites who hung from rattling trolleys and bulging buses welcomed the recent wartime opening of the third section of the Moscow subway system. Extending about six miles from the center of the city to the

Stalin plant, the new line is largely a product of volunteer labor—as the banner indicates: "A new victory of the Soviet rear." Daily capacity is 150,000 passengers, and, as in other Moscow subways, stations are adorned with slabs of Gruzian marble and mosaics of Soviet industrialization.

Why is a bomber like a Dime Store?



"It's like a bloomin' dime store!" said one of the aircraft mechanics as he made a final check of the instrument-studded control panel of a big bomber.

"How's that?" asked his pal. "Why the darn thing's full of glass jewels!"

And it is, no fooling! One of the most interesting developments of the war is the use of tiny accurately shaped droplets of glass for instrument bearings, which used to be laboriously fashioned from imported sapphire. Now made of glass developed by Corning, the new "jewels" have two great advantages. One, speedy production, far beyond anything possible with real jewels. Two, glass jewels are so hard and tough they often outwear the steel bearing points.

This is just another example of how the American glass industry, developed to full strength in peace time, has been able to come quickly to the aid of our nation in war. Corning is full of other examples where glass was ready almost immediately—to replace vital metals, to do a thousand difficult and essential war jobs.

Take the problem of pipelines for a feverishly expanding chemical industry. In many cases alloys were used that are needed in other places. Corning was ready with tested glass piping that often outlasts metal many times over because glass is almost corrosion proof.

That is just one example of how glass is helping an essential industry



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RAILWAY EXPRESS AGENCY

NATION-WIDE RAIL-AIR SERVICE

Allied armies move into areas scattered with partially destroyed Harvester tractors of this vintage.

Multiply this example by all the goods requirements of a scorched area which may include Russia, France, Greece, Belgium, the Netherlands, Norway, and the Balkans. Set the total against (1) existing civilian stocks and currently available productive facilities and (2) available quotas of raw materials. Figure the squeeze on war production. Many business analysts believe military needs in reconquered areas will bring about the first large reconversion to production of civilian goods in the United States.

Help for Colonies

Britain establishes fund for postwar development of the West African group; viewed as inspired approach to problem.

While postwar planners study problems of food, money, and aviation, the British Colonial Office has quietly allocated \$500,000 for postwar expenditures in British West Africa. London heralds the move as the first inspired approach to Britain's perennial colonial problems and holds firm hopes for its success.

● **Gold Coast Institute**—The money is not to be spent on steel mills or railroads. Under the British Colonial Development and Welfare Act, the fund will establish an Institute for West African Arts, Industries, and Social Studies in the Gold Coast.

Last year British West Africa—Gambia, Sierra Leone, Nigeria, and the Gold Coast—achieved wartime economic integration through the appointment of Lord Swinton, former Secretary of State for Colonies, as resident minister and coordinator. Their normal relations with the world and internal economies upset by war conditions, these countries face problems of postwar readjustment that have been a constant worry in the Colonial Office.

● **To Build Local Industry**—The institute will be concerned initially with the development of local industries—brick and tile making, cotton spinning and weaving, and pottery—and, in the long run, with bridging the gap between village and tribal economics and 20th century industry. By training native workers for responsible positions in local production and trade and by extending general and vocational education, a parallel development of political interest and responsibility is expected. Chief credit for Britain's recently enlightened colonial plans must be given to Lord Hailey, author of the monumental African survey completed a few years ago and now a leading figure in development planning.

New Crops Tried

United Fruit won't forget bananas, but it is introducing many products such as manila fiber in Latin America.

If the United Fruit Co. has its way, many commodities formerly imported from the East Indies will be brought to this hemisphere and permanently established in Central America. The banana would continue as of yore to be the company's mainstay. But United Fruit is spending real money to help the government make up for vital materials blocked by the Jap conquests, and it doesn't intend to abandon these projects after Johnnie comes marching home.

• **Many Products**—Some of the crops now being introduced are: natural rubber; manila fiber, most valuable material for marine rope; roselle, a substitute for jute in bags and cordage; rotenone, an insect killer harmless to humans; rice, a staple food in Latin America; cocoa; essential oils; and numerous tropical hardwoods. With the exception of manila fiber and roselle, which the company is planting for the Defense Supplies Corp., the new crops are being established at company expense. Thus it has opened a new supply front extending 2,800 miles, from the Dominican Republic to Ecuador.

The manila fiber now coming into this country arrives from a United Fruit project at Almirante, Panama. Since 1925, the company has had an experimental farm there, a detail in a policy it has followed with many other products.

• **Mill Now Operating**—During 1943, the United States Navy will be supplied from 20,000 acres of manila plantings. Within 22 months, this will be increased to 40,000 acres, enough to meet about half of our needs. The plants (which resemble banana trees) are being processed at the mill built by United Fruit at Almirante, now running full blast on the first crops. A second mill will be operating in Costa Rica by the end of the year.

We got our prewar supply of manila fiber principally from the Philippines where the crafty Jap had monopolized its culture (BW—Feb. 6'43, p. 24). First question asked in the trade is how United Fruit expects to compete with coolie labor once the Philippine product is back on the market.

• **Favorable Factors**—The company admits that it will be up against a tough cost differential but points out that it holds some trumps. It takes a good farmer to raise bananas, and the skill of Central Americans, aided by mechanization, will do much to compensate for the higher wages they get. Then the

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Modern Dodge Group Drive applies share-the-ride principles to horsepower delivery... taken from its source, capacity power over short power "roadbeds" is delivered enroute to a group of production machines. Group drive permits one motor to do the work of several (a powerful advantage in these war days when conservation of materials and manpower is so vital).

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DANVILLE ILLINOIS

Central-American valleys are so rich that they will produce a ton an acre of manila fiber yearly, compared to half a ton or less from an acre of Philippine planting. Another great advantage is lower shipping costs.

Despite these handicaps, the Japanese probably will still be able to undersell Central America.

• **Cocoa and Rice**—United Fruit is beating down hard on development of rice and cocoa, the latter representing another of those American crops kidnapped and established commercially elsewhere. Rice is a staple item of diet for 40,000,000 Latin Americans. Instead of growing their own, they were supplied (aside from U. S. exports) by such distant lands as Burma and India until the war cut them off. The United Fruit has bought a rice mill in Ecuador and started off by assigning 1,760 acres of suitable company lands to interested farmers.

In Honduras, the company planted 300 acres of rice last year. It also financed the construction of a modern mill to process rice from its experimental farms and private plantings. As a result, Honduras recently had an exportable surplus of 7,500 bags of rice.

• **How About Bananas?**—While the experiments of United Fruit Co. are definitely aimed at establishing suitable new crops on a sound basis, it is not forgetting bananas, the fruit on which the company has built its business.

Disease is always a threat. United Fruit is still breathing hard from its battle with sigatoka, an ailment that



To cushion war's impact on bananas and to reduce North America's dependence on imports, United Fruit develops rubber at its own expense in Central America.

We were willing and able to take *TOUGH JOBS*



NEARLY EVERYBODY seems to know that the Chrysler Corporation makes Army tanks and that those tanks give a good account of themselves in battle, throughout the world.

For well over a year these big fighting machines have been produced in ever increasing quantities, but they are,



"GUNS AND CANNON
FOR ATTACK AND
DEFENSE"

after all, only a part of the total war production of this corporation.

That total war production includes twenty-one distinctly military products.

For the soldier we not only make tanks in which he engages the enemy in battle; we also make the trucks and combat vehicles which haul him and his equipment about. We make the stoves that heat his tents and barracks and the field kitchens on which his meals are cooked. We make refrigeration units which preserve his food in camp and in the field. We make the



"GYRO-COMASSES FOR
THE NAVY AND
MERCHANT MARINE"

ammunition to defend him and the guns and cannon with which to shoot the ammunition.

For the Air Service we make bomber fuselages for the Army, and major bomber sections for the Navy. We make landing gear for planes. In Chicago we are just completing a very

large plant to make big airplane engines for long range bombers. We make the bomb racks to carry the bomb loads of the planes. We are



"COMBAT CARS TO HAUL
MEN AND EQUIPMENT
INTO BATTLE"

making thousands upon thousands of Duralumin forgings and castings for all types of aircraft purposes.

For the Navy we are making vital parts of searchlights that the Navy uses to spot its targets. We are making the gyroscopic compasses that steer the ships of the Navy and Merchant Marine. We make pontoons for lighterage and for the raising of ships that have been sunk. We make both pusher and puller types of tugs which are used all over the world from Iceland to Guadalcanal, on the rivers of South America, India and Russia. We make thousands of



"BIG AIRPLANE ENGINES
FOR LONG RANGE
BOMBERS"

marine engines for many purposes—some of them for commando boats and things of that nature

When we saw the war coming we knew that it would be a mechanical war and that no concern the size of the Chrysler Corporation would remain out of the picture.

We felt that institutions like ours should hold themselves free and in readiness to take tough jobs—those things that require intense cooperation on the part of scientists, metallurgists, engineers; the volume jobs that require intimate knowledge of the tooling and mechanical processes necessary to make duplicate equipment in large volume.

Today finds us employing over eight thousand subcontractors. Fifty-eight cents of every dollar we receive for our war effort is passed on to somebody else who supplies us services, materials or parts. We are not only prime contractors ourselves, but we are also subcontractors for a number of other companies, ranging from such concerns as General Electric and



"THE MARINE ENGINES
FOR COMBAT AND
COMMANDO BOATS"

Westinghouse, employing great numbers of people, to small and remote outfits of a few hundred men.

Many people ask "What about your post-war plans?" Our only plan is the present urgent one to win the war and win it quick. For every moment that we can shorten this war we feel that, as a people, we are lucky, and, as a Nation, fortunate.

Of course we think that after the war people will be driving automobiles and eating bananas, washing their clothes, wearing shoes, and that the styles of ladies' hats will change. We feel that business is an economic thing and that it tends to follow cycles. We think that if we keep our minds on the fact that we are sailing a boat on an economic sea, and that if we sail it according to the charts and the weather, and to the conditions we find, that this Nation can go into its post-war effort with the same enthusiasm and the same desire to do a service to our 135 million people that is now being exhibited in this all-out war effort.

K. T. Keller
President, Chrysler Corporation

[WAR BONDS ARE YOUR PERSONAL INVESTMENT IN VICTORY]

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*that will get you
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Presents methods of employee training so simple, so logical, so thorough, that every industrial educational director, training supervisor, and safety engineer will want to be familiar with its practical, workable, idea-packed pages. Sets down complete course outlines, lesson plans, standard practice material, and detailed directions for the installation and operation of any type of employee training—methods that have proved themselves much more effective than older training procedures. 310 pages, 5 x 7½, \$2.50

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Gives recommended methods of handling situations department heads and executive heads and executives encounter daily in their work. Concise, easy to read and understand. Gives quickest sort of training for better results in supervision—solutions to problems that thousands of experienced supervisors agree get best results. 145 pages, 5 x 7½, \$1.75

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A concise manual for all who have to conduct conferences of any type, giving full and explicit instructions on planning the conference, developing thought-provoking discussion questions, and leading the conference through all stages to a useful conclusion. Shows in detail how to apply them in business, industrial training, selling, committee, governmental, and other types of conferences. 191 pages, 5 x 7½, \$1.75

ALFRED M. COOPER, author of these manuals of management methods that work, writes from a strictly practical background as educational advisor to many large firms. He has discussed personnel problems with thousands of experienced supervisors; has trained more than 45,000 employees; has led more than 10,000 conferences. The methods he outlines have been tested and proven effective; many are original . . . most important, he tells you how to apply them.



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Name

Address

City and State

Position

Company BW-6-12-43



United Fruit's Southern Railroad of Costa Rica is being expanded rapidly to maintain quick transportation between new plantations and Pacific seaports.

shriveled the leaf and spoiled the fruit of the banana plant. The company spent millions a few years back, on research, installations, chemical sprays, and labor to defeat this visitation. It claims to have eradicated the menace in its region of influence, but similar dangers pop up in other areas. A dispatch from Nicaragua last month hailed Uncle Sam's rubber project because the republic's banana business had been practically eliminated by disease and lack of shipping. There were doubts that it would ever come back.

● **Improving Yields**—Today, United Fruit owns or leases 3,500,000 acres in the Caribbean-Central-American area. Of this, only 125,000 acres represent high-yielding banana plantations. Since 1938, the company has pushed a program for landowners by supplying money and the services of engineers to improve their yields and incomes.

The fruit company refuses to agree with critics who claim that the record importations of 62,000,000 stems in a single year represents all the bananas this country will eat. Or that the average world consumption of 75,000,000 stems must remain static. It thinks it can do much better with the transfer of its ships from government war service. The trade usually figures that United Fruit does half the business with its rivals sharing the other half.

● **Earnings Decline**—United Fruit Co. earned \$11,900,000 last year, a decrease of roughly \$3,540,000 from 1941. Following diversion of its ships to war purposes, U. S. imports at one time last year slipped off to 20% of normal. The drop in volume, complicated by other war costs, made hard going for the latter part of the year because prices were held under a low OPA ceiling. Later OPA hiked the ceiling price to 5½¢ a pound, enabling the company to cut its losses.

Property Survey

Treasury calls for a new list of American-owned foreign holdings in preparation for the invasion of Axis-held territory.

A comprehensive census of American-owned foreign properties has been launched by the Treasury Dept.

Two years ago, a less detailed survey of foreign properties held by residents and citizens of the U. S. reaped 500,000 reports on form TFR-300. It disclosed that 62% of holdings were direct investments amounting to more than \$7,000,000,000 (BW—Aug. 22 '42, p. 62). Now all corporations and individuals with foreign properties or claims of any description, whether they act for themselves or as trustees, custodians, or nominees, must fill out one of the three TFR-500 forms. Soldiers and citizens in enemy-occupied territory are exempted from the Aug. 31 deadline.

● **Property Over \$10,000**—If the foreign property or claim is valued at less than \$10,000, no report need be made unless it consists of currency or securities. This applies to foreign dollar bonds floated here as well as to securities payable in foreign currencies. It is estimated that more than 1,000,000 individuals, banks, and corporations will file reports of property held as of May 31, 1943. If they fail, they face criminal penalties.

TFR-500 forms can be obtained from Federal Reserve Banks. To handle the expected deluge of paper work, Foreign Funds Control staffs are being rapidly expanded. The importance of the census is cryptically noted in the Treasury announcement:



It's Rope that keeps 'em rolling

With 22,000 fewer locomotives running than in 1918 . . . mile-long freights speeding on crack train schedules, more civilians and two million troops traveling every month . . . the railroads daily do the unexpected, move the heaviest traffic in history! . . . And it's wire rope that keeps 'em rolling.

Lights blaze in the round-houses, repair and maintenance crews work the clock round. Structural assemblies, castings, car structures, locomotives, are moved and assembled by wire rope working in overhead, shop and crawler cranes . . . Car pullers use wire rope to spot flat cars on sidings . . . Big boomed wrecker cranes, sinewed with wire cables, set errant engines and displaced cars back on the rails . . .

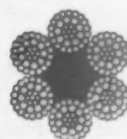
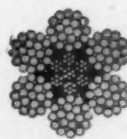
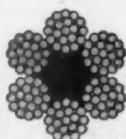
Built to exact specifications for specific jobs, Rochester Ropes more than meet every government standard . . . stand up in the hardest jobs of hard-working industries . . . Today, every pound of our output goes to war



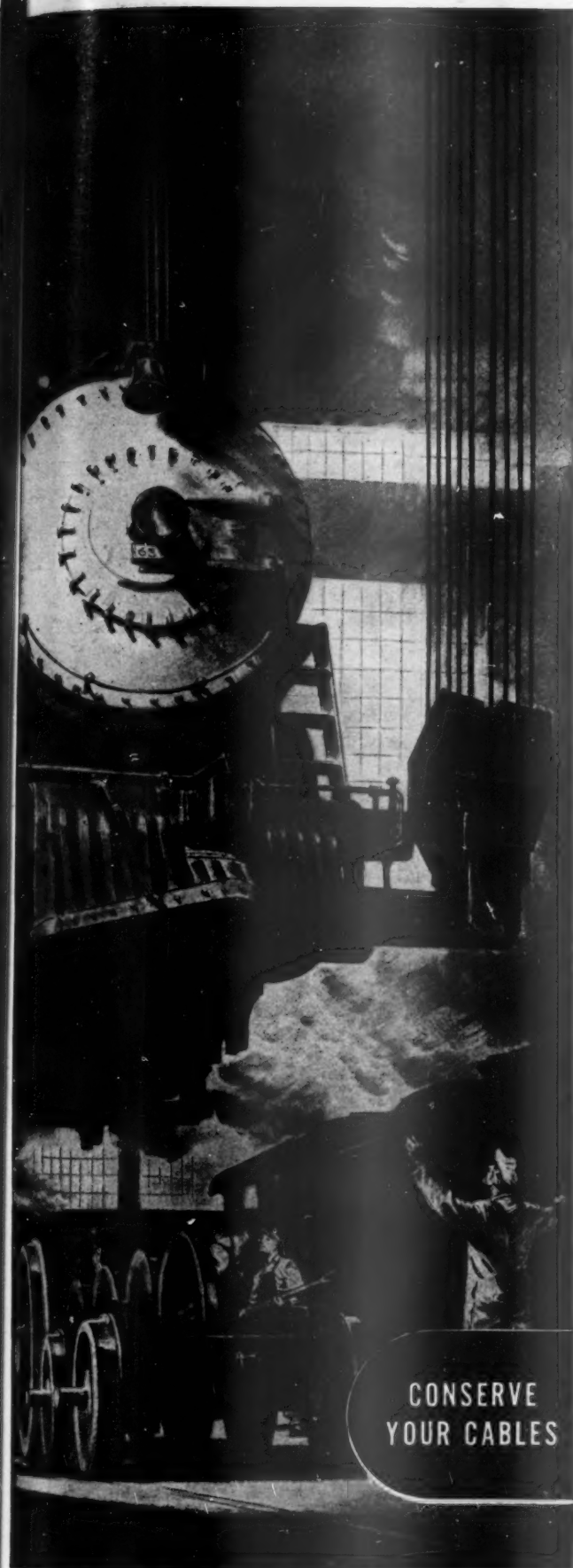
production; but tomorrow, for the best in wire rope, remember—Rochester!

ROCHESTER *Ropes*

CONSERVE
YOUR CABLES



Wire rope is precious now! Take proper care of what you have!

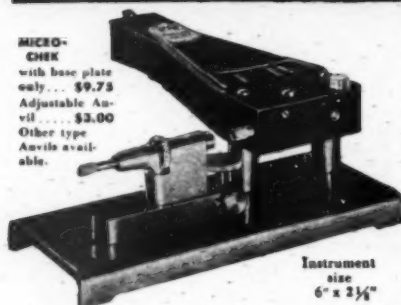


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is helping 2500 war plants speed their output

MICRO-CHEK

with base plate only... \$9.75
Adjustable Anvil... \$3.00
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Instrument size 6" x 3 1/4"

Less fatigue, faster inspections, are speeding up the gaging of millions of precision parts in more than 2500 war plants now using the TRICO MICRO-CHEK. Its advantages:

1. Greater speed with no sacrifice of accuracy;
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Write for illustrated booklet showing many applications of Micro-Cheks.

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"The government's need for detailed knowledge of American interests and relationships abroad has constantly increased since the war began. By means of this census, our armed forces occupying hitherto dominated Axis territory and the civil authorities following in their wake will be supplied with accurate information both for facilitating the occupation and for protecting American interests within the area."

CONCENTRATION AT PEAK

British concentration of industry—to free plant, labor, and warehouse space for essential war work—has reached a saturation point.

Reporting progress of the program begun two years ago and intensified during 1942, the president of the Board of Trade indicated that 2,800 establishments have been closed, 235,000 workers have been released for war employment, and 61,000,000 sq. ft. of factory space made available for war production or storage. The slight rise in totals during the months that have passed since the last report on concentration (BW—Nov. 14 '42, p. 58) indicates a loss of momentum as the program nears its objective.

Five industries took it on the chin as economic controls forced cuts in production to free materials and manpower for war factories and the armed forces. Clothing, hosiery, boots and shoes, carpet, and pottery industries contributed 75% of the savings accomplished by the concentration scheme. Only two industries still in process of contraction—clothing and printing—are expected to release significant additional numbers of workers, machines, and factory space.

CANADA

Now It's PCS

Dominion devises a new materials allocation system and, codifies supplies by end uses; recognized by Washington.

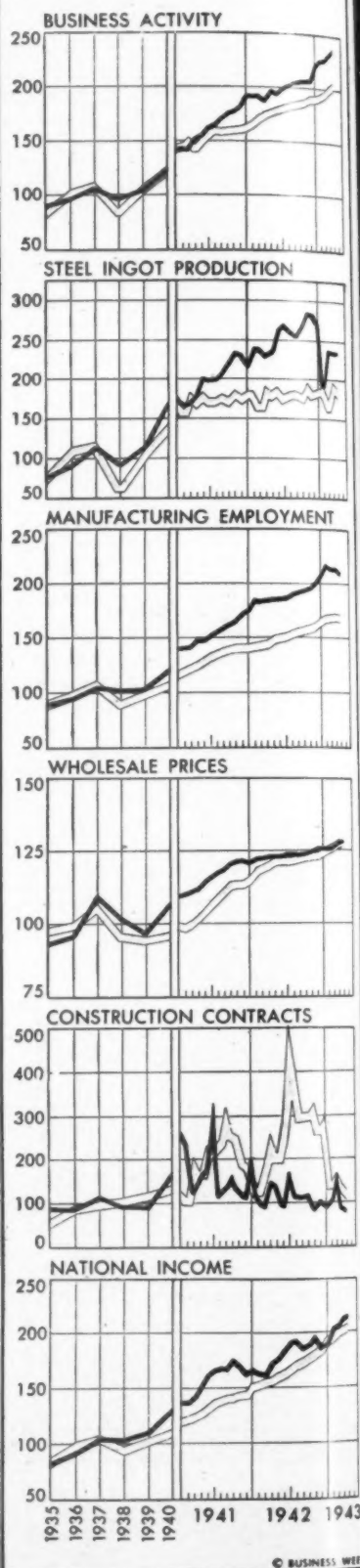
OTTAWA—Canada has established its independence of Washington's fluctuating priority system by special arrangements completed last week. Canadian buying of both U. S. and domestic supplies is now under a Canadian preference allocation plan, and as a result, Canada has succeeded in bypassing the American Controlled Materials Plan (BW—Dec. 12 '42, p. 41).

• **Code Numbers Required**—During the first three months' operations of CMP in the U. S., Canada continued to operate under the old Production Require-

TREND OF BUSINESS CANADA AND U.S.A.

1935-39 = 100

CANADA — U.S.



ents Plan. In the second quarter, there was a special arrangement by which Canadians got their share of U. S. materials while Ottawa was setting up a permanent plan (BW—Dec. 26 '42, p. 32). The new Canadian plan, called the Program Classification System, divides uses of materials into 24 categories from PCS-1, 2, and 3—for aircraft, cargo boats, and naval vessels—through tanks, mechanical transport, weapons, ammunition, construction, transportation, and industrial machinery, to maintenance and repair supplies and civilian equipment and supplies.

All orders for supplies costing more than \$25, except those placed by retailers or buyers from retailers, must carry PCS code numbers to identify the use to be made of materials. Through the U. S. priority division in Ottawa, Washington will accept Canada's certification that U. S. materials ordered by Canadians are essential to the war effort. The new arrangement is a victory for Ottawa's three-year fight for flexibility in allocations.

LUMBER ORDER RESTUDIED

A sharp drop in Canadian shipments of softwood lumber to eastern states (New England, New York, and Pennsylvania) following OPA's April order fixing price ceilings on imports from Canada at levels below previous prices has induced Washington to reconsider the ceiling orders.

A study by OPA of objections raised by Canadian lumber interests will be followed soon by a meeting between officials of OPA's Lumber Division and committees from the lumber industry in Canada. Concessions are considered likely.

Admittedly based on Canada's domestic ceilings (which the industry holds to be uneconomic), OPA maximums, according to the Canadians, cut their return on transborder shipments to \$2 below the domestic ceilings. Prior to Washington's call for price stabilization about a year ago, which Canadian exporters respected, Canadian softwoods commanded differentials of from 50¢ to \$5 per thousand board feet. The ceiling order makes no corresponding allowance on Canadian lumber.

Strong units of the U. S. trade are backing the Canadian case.

TEXTILE, LEATHER CHECKUP

Canada's price-czar, Donald Gordon, may attempt a raid on excess inventories of textiles and leather allegedly held by the armed forces as one step toward forestalling rationing in these lines. Gordon heads a new textiles and leather committee with authority over allocations and inventories and is expected to investigate Army-Navy stockpiles of these products.



WHICH DO WE WANT?

In 1920, most folks had no money in their pockets. In 194X they will have their pockets full. Quite a difference, you'll agree.

First it spells—"Postwar Opportunity"—because when this war is over there will be, in the United States, the two things it takes to create plenty of business—money and markets.

The increase in bank accounts and the buying of war bonds is building up the greatest potential of purchasing power that any nation in the world has ever seen.

When this war is over, our people will have billions in money and a lot of worn-out, obsolete household equipment: refrigerators, radios, and vacuum cleaners, and of course—automobiles.

There will be furious competition, but the business will go to those concerns who have retained this basic principle of merchandising—"Give more people the most you can for their money."

This can be done by utilizing in peacetime products the new production techniques, new materials and new uses of old materials developed and perfected by the impetus of war.

Industry has learned how Management Engineering can be applied to this job, and has called upon organizations like ours . . . The Trundle Engineering Company . . . to help it secure these advantages in its manufacturing operations.

Geo. P. Trundle Jr.
President

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PRODUCTION

Byproduct Alcohol

New process effects big economy by eliminating malt and yields abundant protein for both human and animal diets.

The chemurgist's dream of grain alcohol as the answer to farm surpluses may yet come true—and with it a lengthening horizon of postwar possibilities for the rubber, oil, and chemical industries—through a process of protein extraction which promises to make alcohol a cheap byproduct.

• **Malt Eliminated**—Park & Tilford Distillery Co. demonstrated the new process last week at a distillery in Brownsville, Pa., and won enthusiastic applause from other grain alcohol manufacturers who witnessed it. The process eliminates entirely the use of barley malt, most costly single raw material in grain alcohol production.

Elimination of malt will reduce the cost of alcohol from 4¢ to 10¢ a gallon. With other economies, the new process will, if adopted generally, mean an average saving of 10¢ a gallon—or \$1,000,000 a week at the rate the government soon will be buying alcohol.

• **Government Chemist's Discovery**—The process was discovered less than four months ago by Irvin W. Tucker, a young chemist in the Dept. of Agriculture working under direction of Dr. A. K. Balls, chief of the department's enzyme research laboratory. Park & Tilford developed it commercially.

Malted barley is used in the production of grain alcohol because of its high concentration of diastase, an enzyme whose function is to convert the starch of cereal grains (corn, wheat, rye, etc.) into sugar. The sugar is then fermented by yeast into alcohol. Grain alcohol producers use malt to convert the starch content of their raw material to sugar, upon which distillers' yeast acts, yielding carbon dioxide and alcohol.

• **Natural Diastase Cooked Off**—In the production of alcohol from molasses, diastase is not needed, since molasses is a form of sugar. Wheat and other grains also contain natural diastase, but it is ordinarily destroyed in the cooking process that precedes the conversion step. In the Balls-Tucker process, a solution of sodium sulphite—a plentiful waste product of a number of industries including pulp and paper, ore roasting, and coke making—is used to extract the diastase from wheat before it is cooked and the resulting solution is used in place of malt to convert the starch to

sugar after cooking. Simultaneously, the sodium sulphite extracts the protein content of the wheat, which rises to the surface as a thick, yellow froth.

Separation of the liquid containing diastase, the protein froth, and the virtually pure starch remaining is a relatively simple problem requiring little if any additional equipment. Drying out the froth poses some problems but is a basically simpler engineering job than the ordinary distillery recovery process.

• **Extracts Protein Early**—Distillers "slop"—what is left after the alcohol is distilled off—is customarily evaporated and dried, and the resulting solids are sold to livestock feeders as "distillers' dried grains" for about 2¢ a pound. The Balls-Tucker process not only extracts the protein—the important constituent of the dried grains—in pure form, but also does it at the beginning rather than at the end of the alcohol production line, thus reducing the bulk to be handled through the various stages of production and reducing the residue to a thin slop relatively easy to dispose of.

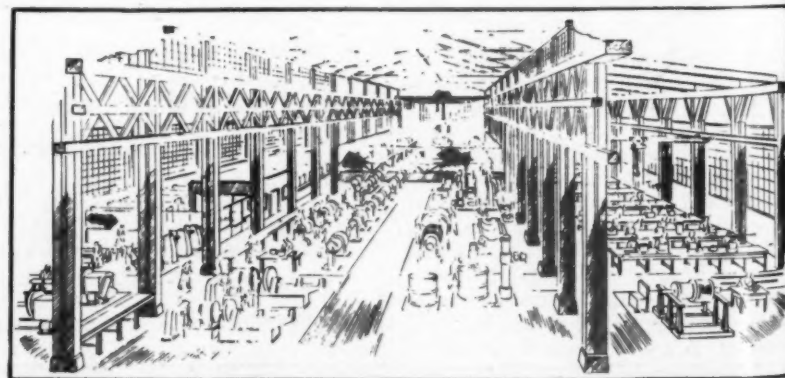
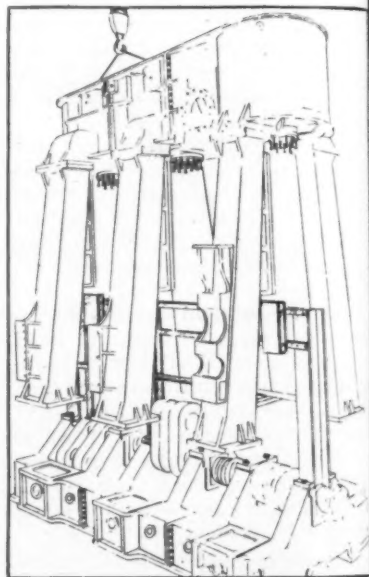
Wheat has been extremely troublesome to handle in distilleries, and the Balls-Tucker process eliminates most of the troublesome features. Wheat ordinarily foams in the fermenters, reducing their effective capacity; clogs in the stills, forcing periodic shutdowns for cleaning; and finally gums up the evaporators and driers used to recover the spent grains. Most of this has been due to the sticky gelatinous gluten in wheat. It is this gluten that the Balls-Tucker process extracts.

• **Which Is the Byproduct?**—The protein recovered is worth 5¢ a pound as an adjunct to livestock feed and may be sold as human food at prices ranging up to 30¢. It has practically the same appearance, constituency, and food value of dehydrated egg white. It can be processed into a number of essential chemical products, including casein, now worth about 20¢ a pound. At three pounds per gallon of alcohol produced, the average recovery, this pure protein byproduct may conceivably yield more than the cost of raw materials plus the cost of extraction and the conversion of the remainder to alcohol.

• **Release Malt for Brewers**—Both barley malt and high protein concentrates are critically short, and beer and

VISUALIZED ENGINES

Considerable publicity has surrounded the use of artist-produced "visuals" in airplane production and pilot training (BW—Mar.13'43,p82). Little has been said about the employment of sketches of a somewhat different type in assisting the Joshua Hendy Iron Works, Sunnyvale, Calif., to become the "world's largest producer of marine engines." First art job got action from the government on a much needed plant addition (below) by presenting a picture instead of 10,000 words of description. More recent art jobs include visualization (right) of a new and improved method of assembling a marine engine which is 30 ft. in height.



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meat production are threatened in consequence. The Balls-Tucker process will lease malting facilities for the production of brewers' malt, so that the war alcohol program may not affect beer production as it has whisky and gin. One billion pounds of concentrated protein can be recovered annually by the process, the equivalent of about 10 lb. of meat per capita.

Now being expedited under Gillette committee pressure is an \$11,000,000 program to install new equipment in distilleries to insure full recovery of the dried grains for feed. A large part of this expenditure can be saved since much less equipment is needed to recover the Balls-Tucker protein, and some of the present equipment will work satisfactorily.

• **Cheap as Synthetic**—With full development of the possibilities, grain alcohol can be reduced to the cost levels of molasses and synthetic alcohol, which are ordinarily about 50% cheaper than grain alcohol. This would make large-scale production of grain alcohol or synthetic rubber and other industrial purposes a practical postwar possibility, with tremendous implications for industry as well as for the farmer.

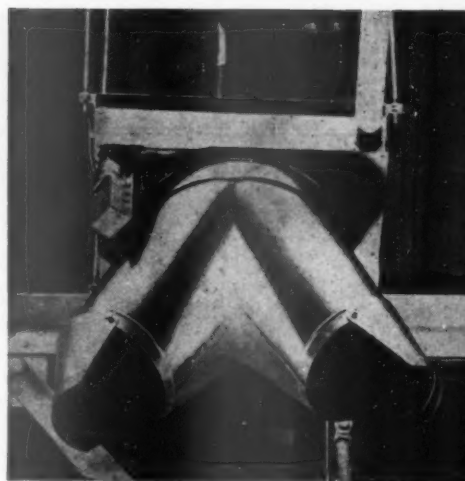
Heretofore, chemurgists who grappled with the question of farm surpluses habitually stubbed their toes on two hard problems: There was no market for the tremendous volume of alcohol that could be produced from farm products, and the cost of farm alcohol was prohibitively high. The war has solved the first problem—the synthetic rubber industry can use 250,000,000 gal. of alcohol annually, and there is more possibility that farm alcohol may be needed for motor fuel with petroleum reserves being depleted at global war rates. Balls and Tucker appear to have solved the second.

Talc Supply Eases

Substitutes pad available stocks, enabling WPB to relax its inventory control; miners may be coaxed back to jobs.

In the hot shadows of the Panamint and Inyo mountains of Nevada and California, fewer than 200 tough, skilled talc miners are producing most of the steatite used in radio insulators, so important in war. Steatite is talc containing less than 1½% lime, 1½% ferric oxide, and 4% alumina.

• **Controls Relaxed**—A shortage of steatite last October scared the Army, Navy, and 27 manufacturers into getting the War Production Board to issue Order M-239, freezing stocks. Now WPB is permitting expansion of inventories: twelve months for war purposes, two



This is the Wing REVOLVING Unit Heater, the most modern form of industrial plant heating. Located overhead, the air is drawn from the ceiling, passed through the heating element and projected through slowly revolving discharge outlets to the working level. The gentle air motion brings a sensation of fresh, live, invigorating warmth to workers.

L. J. Wing Mfg. Co.

151 W. 14th Street, New York

Factories: Newark, N. J.



WING *Revolving* **UNIT HEATERS**

UNIT HEATERS • VENTILATING FANS • EXHAUSTERS • BLOWERS • TURBINES



1 Start. Smoke from bomb at top of heater is drawn through heating element and is discharged in slowly moving streams to the working level.



2 Note how the streams of heated air flow gently even to remote corners of the room and around obstructions.



3 The discharge outlets have slowly revolved through 180°, building up a blanket of uniformly warmed air.



4 Still turning through 270° the streams of heated air are covering every part of the working level.



5 The discharge outlets have completed one revolution, demonstrating conclusively the thorough coverage of the WING Revolving Heater.

PROTECT YOUR Extinguisher SO IT CAN Protect You



Protect the life of your Extinguisher by keeping it filled and in first-class operating condition.

Your local Fyr-Fyter distributor will be glad to call and inspect your equipment. If there is no distributor in your locality, copy name, size and type of your extinguisher from the nameplate and mail to us. We will gladly send complete service information with name of our nearest service man.

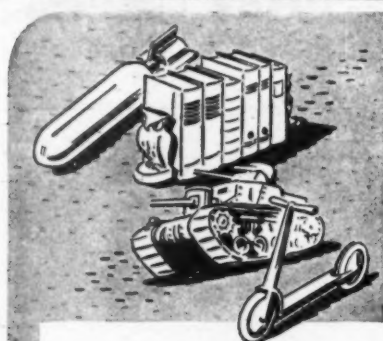


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R. C. IDDINGS
President

FYR-FYTER

POST-WAR PLANS
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Engineers



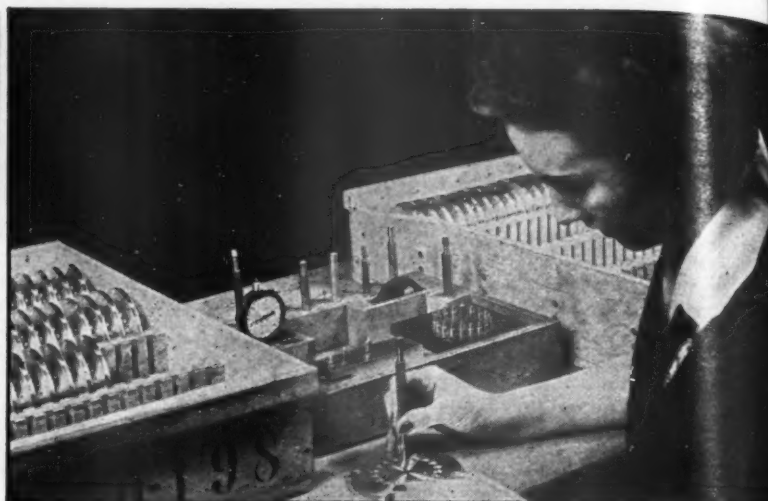
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THE ELIOTT
Manufacturing Co.
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PRECISION TOOL MAKERS



HELPING THE GAGERS

To simplify and speed up vital gaging operations along war production lines, Nash-Kelvinator uses special boxes for its measuring devices. Arranged in left-to-right sequence for each particu-

lar operation, the gages are handy for instant selection and provide a reminder against omitting a test. Three sizes of boxes are provided, fitted with the plug, slot, and snap gages needed at each inspection point. Simple blue prints guide each operator.

months for cosmetics, insecticides, roof materials, etc., and three months for other purposes.

Introduction of substitutes (like bakelite, mikalex, glass) so relieved the situation for some purposes that the talc mines weren't getting enough orders to keep running profitably. Miners left to dig iron—at higher pay—in Henry Kaiser's nearby deposits. A talc miner may work irregularly and go on frequent binges in Keeler or Oasis or Goldfield, but he knows how to pick different grades of talc as he works by carbide light in the shallow shafts. An iron miner doesn't need such skill. By letting inventories expand, WPB hopes to revive statite output sufficiently to bring miners back to their jobs.

● **Principal Uses**—Steatite accounts for about 10% of total U. S. talc production of 350,000 tons yearly. The other 90% goes into paint, ceramics, wall tile to prevent crazing, markings for steel, paper food containers, refractories, and so on. It is mined pretty much all over the country, notably around Gouverneur, N. Y., and in Vermont, Georgia, and North Carolina, but the pure talc comes from the Southwest. This is the stuff, too, that makes foot powder for marching soldiers.

Cosmetic firms used to get much of their talc from India, Italy, and Manchuria but have always used some domestic talc, even though their wares account for only a small part of total production, perhaps 0.5%. Now they are finding by government analysis that domestic talc is better than they thought, so will probably use more of it after the war.

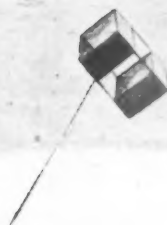
Cornstalk Plastic

Lignin from paper pulp operation still holds the price edge, but straw product has use as phenolic resin extender.

A new type of lignin plastic, which the Dept. of Agriculture says can be made from cornstalks and straw, isn't arousing much enthusiasm because lignin from paper pulp operations and sugar cane bagasse can be obtained more economically. Best outlook for the use of this thermosetting plastic is as an extender of phenolic resins which are in the critical supply category. Agriculture announced the new process prior to conclusion of pilot plant research at its Peoria (Ill.) regional laboratory so that manufacturers may utilize it in the production of materials for military use.

● **Concentrated Supply**—Flax straw is the most likely new source of lignin, according to the department, because, unlike cornstalks and wheat straw, the supply is fairly concentrated. Minnesota grows about half the annual flax crop of 40,660,000 bu. and could supply about 3,000,000 tons of straw a year. Sale of flax straw to makers of cigarette paper, however, indicates that costs are too high to compete with paper mill lignin. Cigarette paper makers pay \$1.50 a ton for straw in the stack, but by the time it is baled and hauled, it costs them three times that much.

The Bureau of Standards has made a few tests on lignin and found it suit-



When you say a prayer to a kite string...

LET'S SUPPOSE you're one of five men on a new-type life raft the Army Air Forces are using now.

Between your knees you're holding the radio sending set. You turn the crank on top of it and generate the juice.

But you don't know code. There on the front of the set, however, is a button marked "SOS." You press it. Automatically, you're calling for help.

Your eyes look up at the antenna where the "SOS" is going on the air. It looks like a long, slim string, curving up 100 feet into the sky. At the end, holding it aloft, is an ordinary box kite.

You've flown kites before but never under these circumstances. And you're praying now . . . that the kite string is good and strong. For if it breaks, *blooey*—your "SOS" won't reach anybody.

But the kite string is unbelievably strong. Salt water, sun, and rain won't harm it either. Nor has moisture rotted it, as it

lay wound around the sending set for many weeks in the life-raft container stowed away in the plane you've just crash-landed.

The fact that this kite string does its job is not just a stroke of luck.

For the Life Raft Section of the Army Air Forces planned the kite string that way. They considered many materials out of which to make it. Finally they selected one—a new and unusual material which met the requirements of *great strength, lightness, and durability*.

Strangely enough, this new material is GLASS! Not glass as we see it on dining tables or in windows, but glass in the form of fine fibers—called Fiberglas.* It is so flexible it can be braided into stout line.

This line is the kite string. Wrapped around it is the antenna of the radio sending set.

Naturally, we're mighty proud

of the many important war uses of Fiberglas. But that's not the real point as we see it.

For every day examples like this are turning up—examples where fast-thinking, hard-hitting men in the Army and Navy services are quick to search out and apply new methods, materials, and ideas to build better equipment for war.

So, it's no wonder that Fiberglas workers in plants and laboratories, operating around the clock, are determined to supply the Army and Navy with ever-increasing amounts of Fiberglas. Owens-Corning Fiberglas Corporation, Toledo, O. Fiberglas Canada, Ltd., Oshawa, Ont.

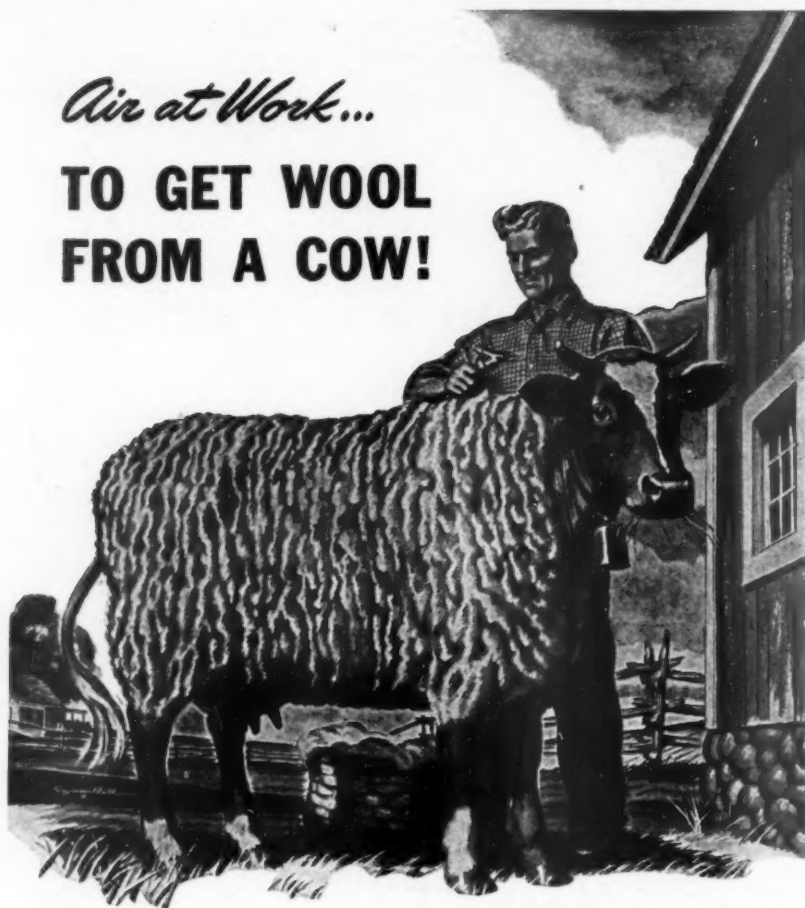
FIBERGLAS

*T. M. Reg. U. S. Pat. Off.



Air at Work...

TO GET WOOL FROM A COW!



Here's a thought to make any self-respecting bull sit up and take notice... a red blanket made from his own barn mates' milk! It's made possible by another of America's industrial miracles, with a name worth remembering... ARALAC. This amazing material starts as skim milk, now largely unused except for feeding animals. The milk is transformed into casein, then into a viscous mixture which is forced through tiny spinnerets, emerging as the first man-made protein fibre.

How does "Air at Work" get into this picture? First, because from the seething chemical baths where these fibres are treated, as they leave the spinnerets, pungent vapors spurt out—vapors which must be whisked away by Sturtevant Equipment before they can get out into the plant air. Again, in the conditioner that squeezes out and reclaims the chemical remaining in the fibre, rising fumes must be controlled. Finally, to obtain fluffy strands that mean improved warmth, softness and crush resistance for countless garments, fibres must be quick-dried with precision blasts of air.

All told, Sturtevant Fans, carefully engineered for the job and specially built to

combat corrosion, deliver 7,000 cubic feet of controlled air for every pound of "cow's wool" produced.

HOW MUCH AIR TO MAKE YOUR POST-WAR IDEA COME TRUE?

After the war, all America will benefit from the lessons we are learning today. Engineered AIR... to ventilate, heat, convey, control dust and fumes, or burn fuel... will make the difference between profit and loss for many a post-war venture. Somewhere along the line... more efficient, more compact, air handling equipment may pay production dividends for you. Sturtevant's work of yesterday and today will be tremendously helpful in providing the answer.

B. F. STURTEVANT COMPANY
Hyde Park Boston, Mass.

Sturtevant
Puts Air to Work

able for bottle caps, tool housings, and some electrical parts. The bureau reports, however, that the qualities that lignin adds to molding powders have not been sufficiently determined to forecast its ultimate place in the plastics industry.

LIGHT METALS BONDED

When Goodyear Tire & Rubber Co. dedicates its new research laboratory in Akron June 21, part of the ceremonies will be demonstration of a Chrysler-Goodyear process of welding aluminum and magnesium which the two companies have christened "cyclewelding." According to a preliminary announcement, cyclewelding uses an electronic timing device to control each cycle of electric current used in the welding process.

Cyclewelding, declares Goodyear in the June issue of *Aviation*, "creates a continuous bond between light aircraft metals through use of a synthetic adhesive." Goodyear claims that the bond so created is stronger than is possible through either riveting or spot welding.

For a number of years, aircraft builders and welding equipment manufacturers have been seeking a satisfactory substitute for the rivet in putting together the aluminum outer skin of fuselage and wing sections. If cyclewelding proves to be the answer, it is due for a skyrocket career. The method may be split-second application of an electric current, controlled to prevent burning which produces a lasting bond between the metal and the synthetic cement.



CRITICAL SUBSTITUTE

Savings of critical aluminum are being effected by the use of Ethocel, Dow Chemical plastic, for Army canteens. However, there is a catch. Ethocel is about as critical as aluminum. So far, however, enough has been allocated to turn out the canteens in volume.

"NOW'S THE TIME TO PROTECT THAT 'RESERVE VALUE'!"

—Says your General Motors Dealer

EVERY car now in service has more built into it than any of us normally gets out.

"They were built that way for the same reason that engineers design extra 'margins of safety' into bridges — to make sure that they will stand up even under extreme conditions.

"That extra serviceability — call it 'Reserve Value' — can come in mighty handy now that the country needs all the good we can get from any car.

"It can keep needed cars rolling in necessary driving, make tires go the full limit, save fuel so that fighting men can have more. It can protect your investment and conserve the national asset represented by the twenty-odd million cars now in use.

"It's easy to protect the 'Reserve Value' in your car and prolong its usefulness, if you'll see that *all* the things that should be done for it are *rightly* done *at the right time*.

"That may mean more care than you give your car in peacetime — few people do all the things the Car Manuals call for.

"But I'm here not merely to service your car as it should be serviced — but to explain *what* it needs *and why*. Come in — and let me show you how to capitalize fully on the 'Reserve Value' in these times when it is really needed!"

GENERAL MOTORS

"VICTORY IS OUR BUSINESS"

CHEVROLET • PONTIAC • OLDSMOBILE • BUICK • CADILLAC

Save for Victory —
Buy War Bonds

ENTRANCE





GET RID OF THE NOISE DEMONS

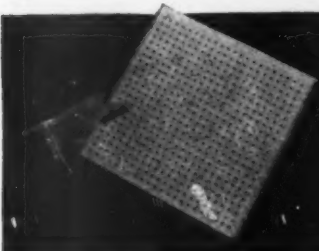
... trap them in ceilings of Armstrong's Cushiontone

WITH HELP SO SCARCE and work so heavy, an office simply can't afford to put up with efficiency-wrecking noise demons. There's no need to put up with them, either. Get rid of them with low-cost ceilings of Armstrong's Cushiontone.

As much as 75% of the sound that strikes a Cushiontone ceiling stays there . . . absorbed by the 484 deep, noise-quieting holes in each 12" x 12" unit. Repainting (with ordinary paint and painting methods) does not affect this permanently high efficiency.


Cushiontone is quickly installed, with little or no interruption to office routine. It's low in cost, too, and simple to maintain. Its factory-applied surface is light ivory in color, reflecting light unusually well—improving general illumination.

NEW BOOKLET gives all the facts. Let us send you a copy now, and a sample of Armstrong's Cushiontone. Armstrong Cork Company, Building Materials Division, 3006 Stevens Street, Lancaster, Pennsylvania.



Armstrong's Cushiontone

Made by the
Armstrong's Linoleum

 makers of
and Asphalt Tile

NEW PRODUCTS

Lead-Sealed Steel

Eighteen years ago, the Continental Steel Corp., Kokomo, Ind., began experimenting with lead coatings. Six years later, its metallurgists achieved "Lead-Sealed" Steel Sheets which were withheld from the market at the time because almost microscopic pinholes seemed to cause streaking or discoloration after a few weeks of atmospheric exposure. It was thought that the sheets would not be competitive with galvanized sheets and long terms then in ample supply.

Recently, the metallurgists discovered that despite original pinholes, test samples were in a "perfect state of preservation after many years of outside exposure to smoke and moisture-laden air. Now Continental Lead-Sealed is coming to market for the first time. Its appearance is similar to tinplate. If used inside and left unpainted, the coating oxidizes to a dull gray color. Used outside and unpainted, it shows a "remarkable ability to combat rust even to the extent of bleeding over scratched or uncoated spots. When this happens, discoloration appears, but disappears when the 'bleeding' process is complete."

Electronic Heaters

Experience with over 100 installations in its own plants underlies the



design of two compact new Electronic Heaters, now being announced by General Electric Co., Industrial Heating Division, Schenectady, N. Y. One has an output of 5 kw., the other 15 kw. Both are essentially power oscillators which convert 60-cycle current to approximately 500,000-cycle for the induction heating of metal parts for brazing, soldering, and selective heat-treating.

Attached to a cabinet which houses electronic tubes and other equipment is a work table with water-cooled coil or coils (which can be fabricated easily in different shapes to suit particular types of work) connected to the heater terminals. Once the dials are set for a particular heating operation, it can be re-

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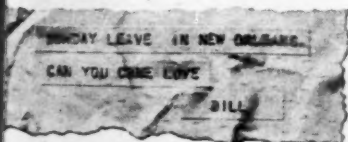


Copyright 1943, The Pullman Company

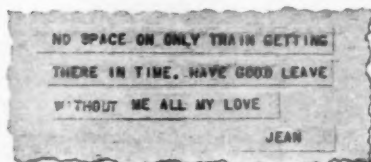
Dear Bill - The Navy doesn't cry

But I *did* want to see you so!

Your telegram was almost as good as news that the war had ended.* It's kinda rumpled now, because it spent the night underneath my pillow.



And my heart sank as deep as an anchor when I had to send that wire.



"Oh, Bill, it would have been heavenly. A whole 24 hours together! Why, that's almost as much as we had for our honeymoon before you went to sea.

"It's hard, dear, desperately hard, not to cry—just a little bit—even though you told me the Navy never does. But I promise to smile all day Sunday, pretending I'm with you. And you smile, too, darling—please, *please* do—and don't let it spoil your leave. Just one of those things that can't be helped, I guess, with the war making travel so heavy.

"But I'll always wonder—

"Was there *someone* who had reservations on that train—someone who couldn't go and *didn't* give up the space? Only a very thoughtless person would do that these days, Bill, but if it *did* happen—if there *was* a wasted bed on the train that went without me—

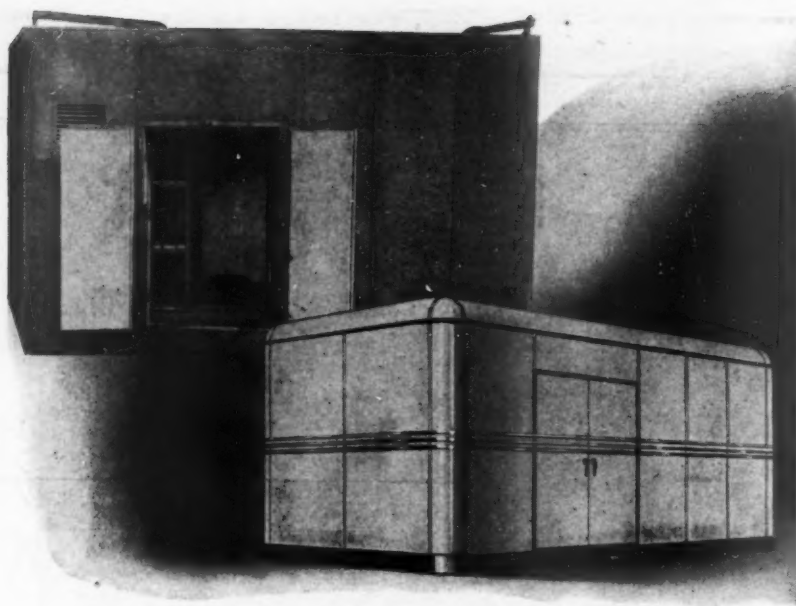
* * *

You never know how important the space that you can't use may be to someone else. So please cancel reservations promptly when plans change.

To avoid wasting accommodations, we must have your cooperation because passenger travel is the heaviest in history and an average of almost 30,000 troops a night now

GO PULLMAN

Buy War Bonds and Stamps REGULARLY!



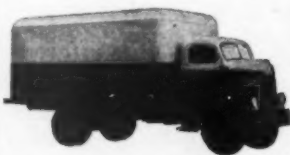
FROM WAR PRODUCTION TO POST-WAR PRODUCTION

COMBAT BODIES



Body builders now providing mobile workshops, command posts, and many other types of combat bodies for the armed forces...

TRUCK BODIES



...can quickly change over to the manufacture of delivery trucks and trailers of all types. No new tools required—no special experience.

—without retooling for a single step in construction

Not only are manufacturers of Lindsay Structure units for war service able to make them faster—and with a great saving in steel, but they will also be able to go into domestic production overnight when the war is over.

These same features that have made it expedient to adopt the Lindsay Structure method of construction for war equipment make it equally easy to change back.

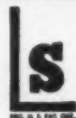
Lindsay Structure...

- requires no special tooling—no experienced workers;
- requires no welding or riveting.

It is available die cut, die rolled, and die formed to any desired size—no waste. Furthermore, it is ideally suited for prefabricated types of construction—making possible tremendous savings in space.

The Lindsay Structure method of assembly—which utilizes all the strength in light sheet metal—is the practical solution for machine housings, buildings, combat bodies, refrigerating units, and many other types of steel construction... both for WAR and POST-WAR equipment. Immediate service on your pilot jobs. Wire or phone for information. Lindsay and Lindsay, 222 W. Adams Street, Chicago, Ill.; or 60 E. 42nd St., New York, N. Y.

LINDSAY



STRUCTURE

U. S. Patents 2017629, 2263510, 2263511
U. S. and Foreign Patents and Patents Pending
For details, see Sweet's Catalog File

LINDSAY STRUCTURE CAN SAVE THOUSANDS OF TONS OF STEEL PER MONTH

peated precisely over and over again by the operation of a push button which sets in motion an automatic timer controlling the heating cycle.

Inspectograph

The portable Inspectograph, new product of S. Lowe & Sons Co., 30 Sanford St., Fairfield, Conn., is designed to assist visual inspection work at any location in a plant where there is a 110-v. a.c. outlet. Two inbuilt fluorescent tubes provide a cool, diffused, practically shadowless light on the work, while a 4-in. lens gives approximately double magnification. An ingenious tilting arrangement permits the inspector to adjust and



lock the device at the angle of vision most comfortable for him.

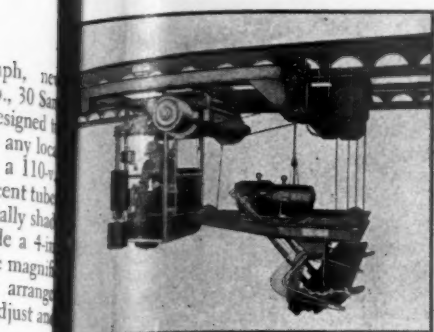
The manufacturer is also bringing out the Inspectoscope (not illustrated), a similar fluorescently lighted magnifier mounted on a flexible arm. It can be set up over a conveyor belt for continuous inspection of parts being transported, or over a lathe, grinder, or other machine tool as a combined magnifier and illuminator of delicate precision work.

Overhead Carrier

One cab operator and a new motor-driven Pipe and Rod Carrier developed by the Cleveland Tramrail Division, Cleveland Crane & Engineering Co., Wickliffe, Ohio, can pick up 1,500 lb. of stock in 12-ft. lengths from the storage room, transport and set it in racks at the fabricating machines without the assistance of any floor men. Overcrowded aisles and manufacturing areas will not be subjected to further crowding by the installation of such a unit, because it travels overhead.

Pipe or rod is handled by two forks which are tilted upward by a motor-driven crank for loading and tilted downward for unloading. A motor-driven hoist lifts the fork assembly and its load

to any predetermined height required to clear men, machinery, and obstructions. Hoisting speed is 20 ft. per min.; carrier travel speed, 300 ft. per min. Simi-



car carriers can be engineered for heavier loads and materials of longer or shorter lengths.

New Products Briefs

Also reported this week, not only for their interest to certain designated business fields, but also for their possible import in the postwar planning of more or less allied fields and business in general, are the following:

• **Textile**—Working cooperatively with dyeing technicians of American Viscose Corp., the engineers of Proctor & Schwartz, Inc., Philadelphia, have developed a new type of Drum Dryer for warp knit and circular knit fabrics. The new machine draws heated air directly through the material instead of across its surface, speeding the process and reducing costs, while "producing fabrics that are more resistant to shrinkage and stretch."

• **Cosmetics**—Vida Ray Cream is being packed by Vida Ray, 257 Cornelison Ave., Jersey City, in colorful new all-glass containers instead of the black jars with metal caps now forbidden by WPB. Each container has a glass lid with an integral lifting knob shaped like the one on antique bean pots.

• **Communications**—United States Plywood Co., 616 W. 46th St., New York, has furnished the U.S. Signal Corps with a new Weldwood Plywood Mast, 75 ft. tall, bonded with Durez Phenolic Resin. The structure, which weighs only 250 lb., can be erected easily by two men using a tubular plywood fulcrum, block and tackle, and a system of guy wires.

• **Foundry**—Infra-Red Engineers, Inc., 812 Huron Rd., Cleveland, announces its new Radicon Infra-Red Skin-Drier for green sand molds. Its inbuilt incandescent bulbs promise to skin-dry molds up to 46x36 in. to a depth of 1½ in. in an average time of 90 min. Two driers placed end to end will do the same job in the same time on a mold 84x36 in.; placed side by side, they will handle a 70x46-in. mold.



FOR LIGHTING THE WAY TO THE TARGET

BEFORE parachute flares are ever called upon to light up a nocturnal target, they must travel thousands of miles over land and sea— withstand rough handling and other transportation hazards. Engineered containers provide adequate protection to parachute flares as well as other vital shipments . . . assure arrival in perfect condition.

General Box engineers are helping scores of manufacturers determine the shipping container best

suited for their products. They have aided many war product shippers in deciding which of the allowable alternate specifications would give them the best results. Their knowledge of the availability of required materials has been of practical assistance to many others.

If you have a shipping container problem, write us. We may be able to help you assure fast, safe packing and shipping for your war products.

*For manufacturers of war products: General Heavy Duty Wire-Bound and Nailed Wooden BOXES and CRATES
For Domestic Service: Corrugated BOXES and Wood Cleated Fibreboard CRATES
Discontinued for the Duration: Generalite and Nailed Strapped BEVERAGE CASES*

GENERAL BOX COMPANY



GENERAL OFFICES: 502 North Dearborn Street, Chicago, Illinois
DISTRICT OFFICES AND PLANTS: Brooklyn, Cincinnati, Detroit, East St. Louis, Kansas City, Louisville, Milwaukee, New Orleans, Sheboygan, Winchendon;
Continental Box Company, Inc.: Houston, Dallas.

MARKETING

Appliance Lure

Dealers devise schemes to get old electrical gadgets out of attics, but the profit and supply outlook are none too bright.

While WPB is cranking up a campaign to have consumers sell spare irons, vacuum cleaners, and small electrical appliances to dealers for reconditioning and resale because no steel is available for new equipment (BW—Jun. 5 '43, p. 5), suppliers are rolling their own restoration schemes to compete with backfence trading of the necessities of America's mechanized households.

During the scrap campaign, when electric irons were pulled out of the junk pile, the Iowa-Illinois Gas & Electric Co. repaired them, slapped on a "duration of the war" guarantee, and sold them for \$2. Later plans are more ambitious.

• **Swap for War Stamps**—Philadelphia's Proctor Electric Co. has just launched a nation-wide promotion based on the assumption that the trade will get consumers to rally 'round to the swap-your-old-appliances-for-war-stamps cry. The Duquesne Light Co., first to merchandize the plan which is designed primarily for small appliances, found in a preliminary survey that 19% of the toasters and 58% of the waffle irons and percolators in the Pittsburgh area are seldom used.

Meanwhile, appliance men report an increasing demand for waffle irons because they don't depend on rationed foods. Proctor suggests that percolators and toasters are necessary adjuncts to a quick breakfast for war workers.

• **Few Large Appliances**—How much of a supply of various kinds of used appliances can be coaxed out of the nation's attics even by the most intensive kind of promotion is anybody's guess, but as far as the large appliances are concerned, it's a safe bet that pickings will be exceedingly slim. According to McGraw-Hill's Electrical Merchandising, at no time were there more than half a million refrigerators or washing machines that could be reconditioned or sold as is. This peak dates back to January, 1942, when trade-ins, accumulated in the big selling year of 1941, had not yet been liquidated. Most of these are gone, and the trade agrees that there are few machines left to recondition. Classified ads reflect more person-to-person sales, but the "wants" far outnumber "for sales."

Prewar policy for vacuum cleaner and

sewing machine producers was to re-manufacture used equipment, dispose of it in periodic department store sales. But these events are rapidly becoming obsolete since the source of supply also lay in trade-ins—most of them accumulated in the door-to-door sales which accounted for about two-thirds of the business.

• **Price Control Blamed**—OPA price control policies on used appliances are blamed for the dealer's bad profit position. Originally, all such used goods were simply blanketed under the General Maximum Price Regulation which froze prices and terms of sale as they were in March, 1942. Ultimately, OPA got around to issuing special regulations on major types of appliances, under which the ceiling price was expressed as a specific percentage of the price of the article when new.

As far as refrigerators, most important of all appliances, were concerned, dealers were still far from satisfied until last April when OPA was finally persuaded to liberalize allowances. Now, for example, a 1942 model electric refrigerator will bring 75% of its new list price, a 1939 model, 70%. Furthermore, dealers are required to give only a 90-day guarantee instead of the full year previously specified. Despite the more lenient order, the dealer's position isn't much improved, for volume is away down—only about 25% of last year.

• **Will Benefit Others**—The appliance trade may have suffered at OPA's hands,

but the vigor of its protest is likely now to benefit dealers in other lines of used durable consumer goods—notably secondhand furniture. OPA was expected this week to remove many of these lines from GMPR and place them under a special order, approved last month by the retailers, which would set ceilings at reasonably generous percentages of the price of new goods. And since the sales boom in secondhand goods hasn't yet hit dining room and living room furniture, dealers in such lines are counting on a good break when the pinch on new goods begins to be felt.

The trade's biggest problem is getting its hands on an adequate supply of used furniture. Families still move and break up housekeeping as men go to war, but because they have a fondness for their own things and because they have heard about the furniture manufacturers being cut to a fraction of previous production, they are putting their belongings in storage.

• **Getting Ready for 1944**—Normally, furniture stores that deal in used merchandise do only from 2% to 10% of their total volume in such lines, but a lot of dealers figure it may be the bulk of their business by 1944 and are pushing it accordingly. Most of them have moved the department from a separate establishment into the basement where stoves and washing machines used to be displayed.

Normally, about half the volume of the secondhand department is cheap new merchandise because customers want pieces such as end tables and straight chairs to go with major secondhand purchases such as a sofa or dining room table. Sales of the hard-to-get used furniture have now dwindled to

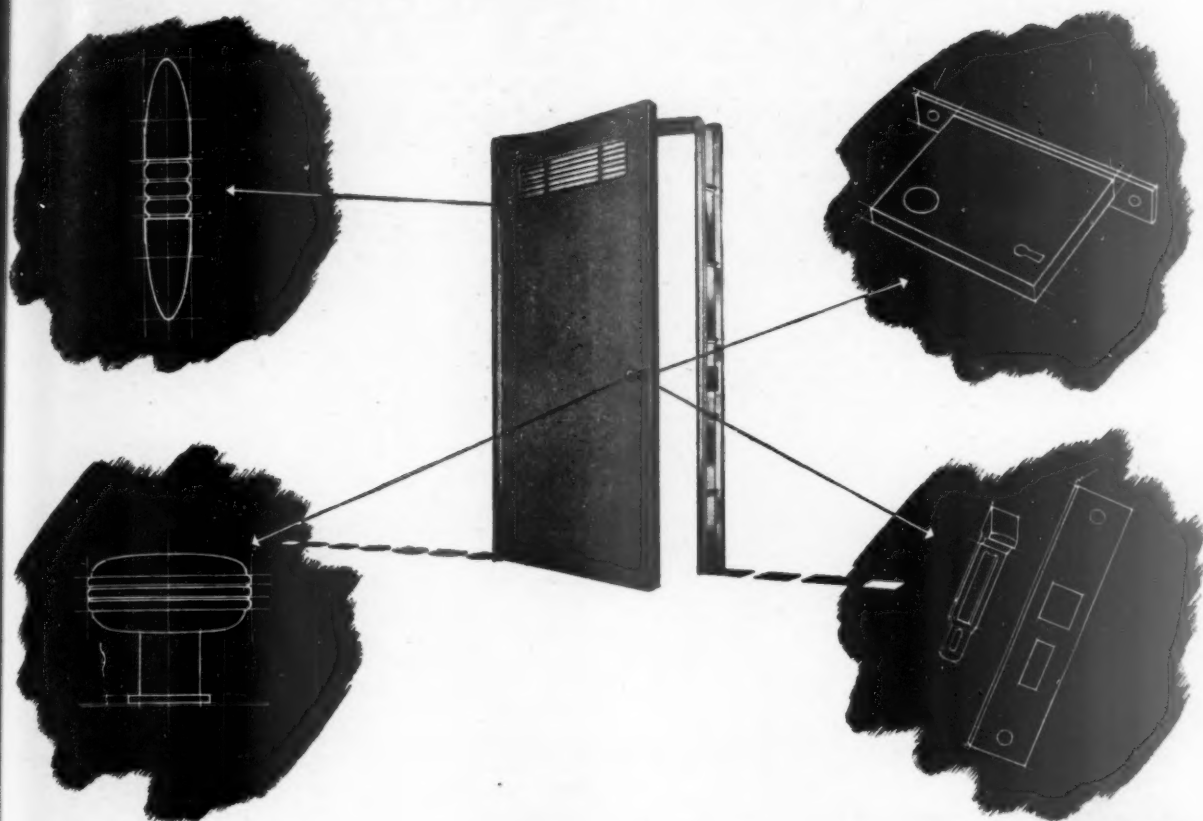


STOREROOM APARTMENTS

By converting empty storerooms into simple apartments, enterprising property owners are protecting investments and helping to relieve the housing shortage at Chicago. Many con-

versions require few alterations beyond the installation of venetian blinds in show windows for privacy and cheap partitions inside. War workers already occupy a batch of the new apartments which help pay the taxes and expenses of building upkeep.

★ BUY UNITED STATES WAR BONDS AND STAMPS ★



Reach out and grasp the future!

YES... the knob on that door.

Doors are the darndest things. They've been around all your life. They've opened the way to every opportunity you've ever enjoyed. But at that, we'll be very much surprised if you can even recall right now the details of your office door!

And you'll be even more surprised at the postwar improvements awaiting the more than 200,000,000 doors in America... thanks to Durez Plastics. Listen to Mr. Stott who has designs on their future...

"As in so many other fields, the developments in phenolic molding compounds and resins hold great promise for functional improvements in interior architecture. Take a door, for example. Whether designed for use on a train, 'plane, ship or in your own home... it can be produced in the factory as a unit. Incorporating Durez phenolic resins, it will be warp-proof and fire-retardant. Molded Durez plastics in attractive modern colors will add functional improvements as well as enhance decorative possibilities of the hardware. A plastic doorknob, for instance, will not tarnish. Furthermore, it is insulated from the static electricity common to metals... eliminating the shock-nuisance you encounter on touching a knob after walking across a rug. But the use of plastics

is not limited to the knob itself. As you can see from the above rendering, the front plate, spring catch and lock housing will also utilize the advantages of one-piece molding with plastics."

Today, of course, Durez plastics and resins have an even more important job than glorifying America's 200,000,000 and more doors. They have their place at the fighting fronts. But they'll be back. So remember to have a good look at the doors in your postwar house. There's more than good reason to believe they'll be made of Durez.



R. DOULTON STOTT
Industrial Designer

DUREZ PLASTICS & CHEMICALS, INC.
546 WALCK ROAD, NORTH TONAWANDA, N. Y.

DUREZ

PLASTICS THAT FIT THE JOB

Independents Gain at Chain Store Expense

Rationing is indubitably helping the independent food stores gain an edge on the chains. Latest Dept. of Commerce figures show that in the first quarter of 1943 the independents' dollar-volume was about 30% over the same quarter in 1942, whereas chain volume was off about 1%. Competitively, the independents' position is the best it has been in ten years:

	Combined Chain & Independent Sales (Millions of Dollars)	Independents' Share	Chain Share
1933.....	\$5,004	55.9%	44.1%
1935.....	6,352	61.2	38.8
1936.....	6,850	61.9	38.1
1937.....	7,266	63.6	36.4
1938.....	7,187	63.6	36.4
1939.....	7,722	63.3	36.7
1940.....	8,317	62.6	37.4
1941.....	9,604	61.0	39.0
1942:			
First quarter..	2,763	60.0	40.0
Second quarter	2,922	61.4	38.6
Third quarter..	3,097	62.2	37.8
Fourth quarter	3,359	65.8	34.2
1943:			
First quarter..	3,274	66.5	33.5

Note: Under independent stores, highly specialized outlets like meat markets and delicatessens are not included. However, their sales, too, are rising spectacularly—22% in 1942 over 1941. 1934 figures not available.

The sharp rise in independent food store sales is most easily traceable to the following causes:

- (1) Consumers—since they have more money—are willing to pay for the convenience of shopping at a nearby store.
- (2) The gasoline and transportation shortage has worked to the disadvantage of the outlying chain supermarkets.
- (3) Independent stores handle relatively more fresh fruits and vegetables than the chains, and the price of these commodities has been zooming.
- (4) OPA allows most of the independents higher price ceilings than the chains.

Point No. 4 can be dramatically illustrated by the following Business Week tabulation of the new community price ceilings in the District of Columbia. If you walked into a small independent D. C. store and purchased one of each of 600 community-priced foods, the whole outlay would come to \$95. In the average chain store, the bill would be \$84. In supermarkets and over-\$250,000-a-year stores, the price would be \$82.50.

Such comparisons as these have lately been making the independents madder and madder at OPA. They claim the price-agency is advertising that the chains and supermarkets have lower prices, and that this advertising will someday hurt the independents. That definitely takes the edge off their general satisfaction with the present competitive situation.

Statistically, a comparison between chains and independents of aggregate prices for a long list of foods can be somewhat misleading because these aggregate prices are not properly weighted—that is, no allowance is made for the fact that consumers usually buy more butter than canned spinach. On the other hand, in the absence of a valid weighting-system, the table below may serve as

a straw-in-the-wind. The consistency of the differentials, furthermore, indicates that the table is on the right beam:

INDEX OF DISTRICT OF COLUMBIA COMMUNITY PRICES ON FOODS

	Class I Stores*	Class II Stores*	Class III Stores*	Class IV Stores*
Canned baby foods.....	100	98	87	84
Bananas	100	100	77	77
Beets (canned).....	100	97	87	85
Bread	100	100	100	100
Butter	100	100	95	95
Carrots (canned).....	100	98	88	85
Cereals	100	97	85	84
Cheese	100	100	86	86
Coffee	100	100	88	88
Corn (canned).....	100	98	85	83
Eggs	100	98	97	95
Flour mixes.....	100	100	89	83
Fruit cocktail (canned)...	100	98	85	83
Jellies, jams, preserves...	100	100	85	85
Lard	100	100	95	92
Lima beans (canned).....	100	98	85	84
Macaroni and noodles....	100	100	98	96
Milk (evaporated, condensed)	100	100	90	90
Packaged dried fruit.....	100	99	83	82
Peas (canned).....	100	98	85	84
Peaches (canned).....	100	98	85	83
Peanut butter.....	100	100	84	84
Pears (canned).....	100	99	87	86
Pineapple (canned).....	100	94	86	84
Poultry	100	100	99	99
Processed fish.....	100	100	82	82
Shortening	100	100	92	92
Sirup	100	100	87	85
Spinach (canned).....	100	95	84	84
String beans (canned)....	100	98	86	85
Sugar	100	97	89	88
Tomato juice (canned)...	100	98	86	84
Tomatoes (canned).....	100	99	85	84
All community-priced food	100	99	88	87

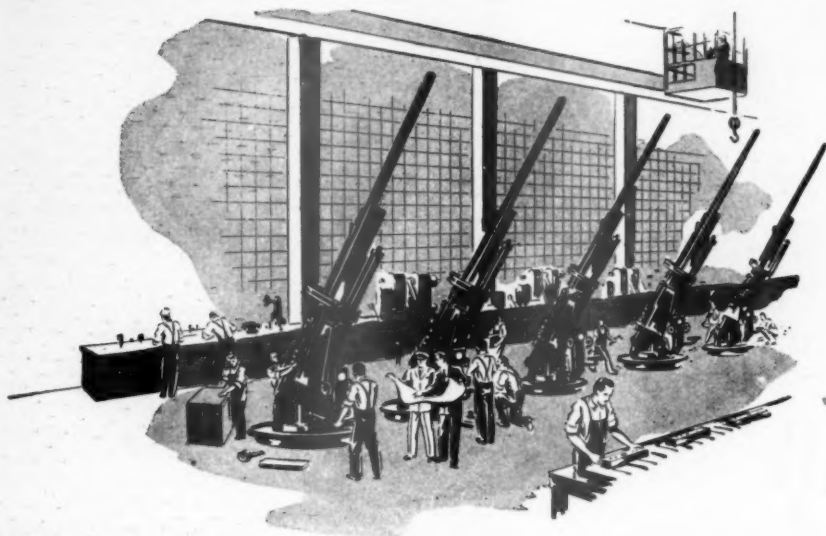
* Class I stores are independents whose volume in 1942 was less than \$50,000; class II are independents with a volume of \$50,000 to \$250,000; class III are chain stores with a volume up to \$250,000; class IV comprises any type of store with sales over \$250,000. When a commodity (or brand) was not sold in all four types of stores, its price was not included in the foregoing table. Also, such commodities as meat were not included because the independents are under one price system while the chains are another type.

However concerned independents may be about the mass distributor's price advantage, what is more apt to embarrass the independents—from the short-range viewpoint—is that aggregate stocks are not keeping up with sales, whereas chain stocks are in pretty good shape. Here is the situation, based on Department of Commerce data:

	Independents		Chains	
	Sales*	Stocks*	Sales*	Stocks*
1940.....	100	100	100	100
1941.....	110	101	111	104
1942.....	135	126	146	129
1943.....	178	130	145	149

*First quarter of each year only. Not compensated for price increases.

ALL OUT OF *One Part* STOPS "ALL-OUT" PRODUCTION



YOU can't maintain all-out production when you are all out of even *one* part! Quantities "too little or too late" . . . or off standard quality that forces rejections of parts . . . can seriously penalize the war effort! . . . If one or more difficult parts are hazards to peak production in your plant now, or are "head-aches" in your plans for future post-war products . . .

Contact KAYDON

Here is an organization with a staff of engineers who have had decades of experience in metallurgy, precision metal-working methods, and plastics. Their experience is fortified by progressive research, modern laboratory, tool room and quantity production facilities — all of which permit Kaydon to tool up for mass production of difficult high-precision parts, on a speed schedule considered unnecessary before global war problems confronted industry. . . . Kaydon has facilities available now for some additional war production and post-war product development.

For excellence in production of extremely precise, unusually large ball and roller bearings.



THE KAYDON ENGINEERING CORP.

16 CRACKEN STREET • MUSKEGON, MICH.

Specialists in Difficult Manufacturing



Page by Name

WEBSTER ELECTRIC
Teletalk
REG. U.S. PAT. OFFICE

Reaches Your Party Quickly

When your operator calls for Mr. Blank over the Teletalk Paging System she is using the modern, quiet, dignified method of contacting individuals.

Graybar houses, located in every key city, will be glad to show you how Teletalk Paging Systems can pay for themselves in short order by eliminating waste man-hours and speeding up the coordination of your business.

Graybar specialists can advise you on priority, appraise your needs and recommend just the type of Teletalk Paging System best suited to your needs. They will supervise its installation without any inconvenience to your business.

For complete information phone your nearest Graybar house.

Graybar Electric Company, Inc.
Graybar Building, New York City

Offices in Over 80
Principal Cities



about 10% of the departmental total, but that ratio won't last long because the cheap new stuff won't be available. Furniture manufacturers, operating on a quota, are putting their efforts into merchandise with a more comfortable margin of profit.

• **No Sales Appeal**—The trouble is, say the dealers, that the used furniture they get isn't the kind that will sell. Round golden oak dining room tables of the 1900-1915 vintage are plentiful but have no sales appeal. Dealers occasionally sell such pieces by sanding them down and enameling them.

Used-furniture departments suffer even more competition from back-fence exchanges than appliance dealers do because reconditioning isn't so important, and because consumers are not too accurate in their appraisals. What's more, stores usually can't afford to allow as much on a trade-in as the answer to a newspaper classified ad will bring.

Tales are common of the woman down the street who was offered \$35 on a trade-in for a set of cheap furniture, advertised it in a newspaper, and sold it on the first offer for \$60. The store would have put \$20 to \$25 labor into it and made a \$10 profit.

• **Major Repair Task**—Reupholstering and slip-covering old merchandise to soup up sales appeal constitutes a major task of repair, and reconditioning departments are operated by some of the tonier stores that are now handling second-hand goods. But the scarcity of cotton duck, damask, and such materials is discouraging the practice, and tapestries and velour are replacing mohair in a lot of furniture coverings as they did in the World War.

POINTS FOR BAKING FATS?

In response to the War Food Administration's advocacy of 25% greater consumption of grain cereals to meet the nutritional deficit due to wartime shortages and rationing, the Millers National Federation is proposing supplementary ration points for fats to accompany each sack of family flour of 25 lb. or more. Millers argue that the housewife won't spend her precious red stamps for fats to be used in home baking, and that extra points for enough fats to convert the flour into edibles would break down her resistance.

OPA and the Food Distribution Administration have extended to the manufacturers of baking mixes the 100% quotas of fats already allowed bakers (BW—May 8 '43, p. 82). Originally bakers were permitted 70% of the fats used in 1942, by quarters. They were permitted the additional 30% for the April-June quarter, and this allowance has been extended to the July-September quarter. With the amount of fats used in 1942, however, bakers are producing about 30% more foodstuffs.

Carter on the Pa

Federal Trade Commission says the Little Liver Pills do actually benefit the liver and insists name must be changed.

Opening the proceeding that ultimately will determine the fate of one of the most famous trade names in the proprietary drug field, the Federal Trade Commission has issued a complaint against Carter Products, Inc., and its advertising agency, Street & Finch, charging the use of misleading claims for Carter's Little Liver Pills. Behind the legalistic verbiage of the complaint and the lengthy charges made against Carter is the one major issue: Is the use of the word liver in the trade name misleading?

• **Of Value to the Liver?**—FTC contends that the preparation contains no ingredient having any therapeutic value in the treatment of any condition of the liver. On this ground, the commission charges that use of the word liver in the trade name is misleading and is prepared to fight for a final cease and desist order that will change the name of the famous little pills.

Carter was not surprised by the attack and is prepared to fight it to the bitter end. It has been common knowledge for drug circles for several years that Carter eventually would have to defend the name of this product. Both the Food and Drug Administration and the FTC were understood to be studying the case, but apparently the latter got the jump on its rival regulatory agency.

• **The Experts Are Ready**—Carter has been marshaling an array of scientific and legal talent to support its position. In the long fight that is expected to result from FTC's charges, the company will produce its own testimony to show that the product can produce a great flow of bile.

Celanese Replies

Company challenges FTC's right to compel it to label its fabrics as rayons and declare its product is different.

The Wool Products Labeling Act (BW—Nov. 1 '41, p. 30) terminated a series of 59 "truth-in-fabrics" bills introduced in Congress at various times since 1902. But the Federal Trade Commission has not been content to limit the labeling question to fabrics containing wool.

• **Charge and Countercharge**—Most aware of this is the Celanese Corp.



Calling MR. BLANK, PLEASE!

Wherever he is, whatever he is doing, Blank turns to answer . . . instantly. He has heard the one sound to which he automatically responds—his name.

Teletalk Paging Systems are the instant, quiet, dignified, modern way to keep in touch with individuals in busy offices and plants. No disturbing confusion, no distraction of attention, no time-wasting steps.

Save those precious man-hours you are losing through slow, cumbersome outmoded communications. Time saved, energy conserved and up-speeded tempo and efficiency will easily pay for a modern Teletalk Paging System.

There's a Teletalk Paging System exactly fitted to your needs. You can have them in units of from 6 to 24 locations; powered for use in a

small office or a large factory; selective as to station or for paging all simultaneously.

With proper priority there is no reason why you should not have the time and footstep saving that Teletalk Paging Systems provide. Teletalk distributors are listed in the classified directories of the major cities as shown below. They will be glad to advise you on priority ratings, appraise your requirements, make practical recommendations and install a Teletalk Paging System without any inconvenience to the work of your office.

Ask your Teletalk distributor about Teletalk Communication Systems, too. They are the perfect answer to instant inter-office communication. If no distributor is listed in your classified telephone directory, write us and we will see that you are properly contacted.

Illustrated below, Model 1012 Teletalk Amplified Paging Unit with facilities for connecting 12 speakers. Handsome two tone solid walnut cabinet.



WEBSTER ELECTRIC COMPANY, Racine, Wis., U. S. A.
Est. 1909. Export Dept.: 100 Varick St., New York City.
Cable Address: "ARLAB" New York City

Licensed under U. S. Patents of Western Electric Company, Incorporated, and American Telephone and Telegraph Company.



WEBSTER ELECTRIC

Where Quality is a Responsibility and Fair Dealing an Obligation"

50 YEARS OF PROTECTION

McQUAY-NORRIS MANUFACTURING CO.

BRIDGE PLANT
ST. LOUIS, MO.
CONNEVILLE, IND.
BIRMINGHAM, ALA.
TORONTO, CAN.

PISTON RINGS
PISTONS
PINS
VALVES
BEARINGS
PUMP PARTS
BOLTS-BUSHINGS

1321 MARCONI AVENUE
ST. LOUIS, U.S.A.

Mr. J. F. McFadden, President,
American Credit Indemnity Co. of New York,
First National Bank Building,
Baltimore, Maryland.

Dear Mr. McFadden:

Congratulations on the 50th Anniversary of
American Credit Indemnity Company! Achievement of
such a significant milestone must be a real pleasure
to you and your fellow executives.

My own pleasure in extending these greetings
is enhanced by the fact that your Golden Anniversary
year is also the 25th anniversary of relations be-
tween our two companies . . . twenty-five consecutive
years, may I add, of very pleasant relations.

Our accounts receivable have been insured by
your Company since 1918, from the First World War,
through the depression of '21, the boom of the latter
twenties, the Great Depression of the thirties, and
now during this chaotic war period. During those
years, our accounts have been securely protected
against severe credit losses by your policy.

May the future of your Company be as illustri-
ous as the past though your accomplishments un-
limited . . . may the next 50 years be a period of
tremendous growth and achievement.



A. G. Dreps.
MTC

Sincerely,
McQuay-Norris Mfg. Co.

Arthur G. Dreps
Vice-President & Treasurer.



Guarantees Payment of Your Accounts Receivable

America against whom FTC issued
complaint in March charging misrep-
entation of fabrics by failing to dis-
adequately to the public that they
acetate rayon products.

The commission alleged that fab-
made from Celanese "to simulate
are advertised as taffeta, jersey, etc.,
etc., and that even when designated
Celanese the label is not sufficient-
well-known to protect the purchas-
public.

Answering the complaint this
Celanese, one of the biggest textile
vertisers, challenges the constitution-
authority of FTC to compel the
pany to classify its textiles as rayon
argues that chemical and physical
erties of Celanese differ from
products and should not, therefore,
be labeled rayon.

• Celanese Corp.'s Arguments—The
against labeling Celanese fabrics as
rests on such arguments as the fol-
ing, adduced by the Celanese Corp.

(1) Cellulose acetate (Celanese) is
unlike cellulose (rayon) yarns, are
moplastic and can therefore be
into permanent moire patterns, cut
ribbons with heated knives. Their
plasticity accounts for quick drying
Celanese hosiery, rayon takes 24
hours.

(2) The cleaning and dyeing indus-
recognizes vital differences in the
fabrics as they react to different che-
icals. Certain dyes and cleaning flu-
customarily used for rayon have no ef-
on Celanese.

(3) Celanese more closely resem-
Nylon, Vinyon, Aralac, and other
thetic fibers than it does rayon. Nil
for example, is thermoplastic and
commercially dyed with dyestuffs
signed for cellulose acetate, not
those used on cellulose.

SPEAKING OF PRICING

As issued, the new ceiling-price
for beauty products (BW—May 27,
p44) looked pretty formidable to the
trade. But when Parfum Schiaparelli
New York filed a new price with OF
for its new product, "Shocking Strep-
ing," producers saw that MPR 393
a lot less complicated in operation
in documentary form.

Schiaparelli applied for a retail
ceiling of \$2.50 per 8-oz. bottle on
metic hosiery, a figure arrived at by
comparison of the new product with
Schiaparelli cologne, "Eau de Santé"
selling at retail for \$3.75 per 8-oz. bottle.

Although the similarity may not be
obvious to the layman, Schiaparelli
decided "Eau de Santé" was by OF
definition its most nearly comparable
product priced under the General Ma-
ximum Price Regulation. MPR 393
procedure calls for the following process
elimination:

(1) The manufacturer selects his
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package as the new product; (2) from these he selects those in the same price range; (3) from these he selects those that move in the same channels of distribution; (4) from these, he selects those that are sold for the same or similar use; (5) from these, he selects those that have the same or similar physical form (liquid, paste, powder, etc.); (6) from these, he selects those packaged in quantities that differ by not more than 50%. From these, the manufacturer selects the preparation having the lowest retail price for the most nearly comparable product."

And that is how Schiaparelli decided "Shocking Stocking" should be priced at \$2.50 by comparison with "Eau de toilette" at \$3.75.

LAME IT ON THIRST

The whisky shortage, like many wartime shortages, is not so much a reduction in supply as it is an increase in demand. Although it is getting harder and harder to buy a drink, almost as much whisky and other distilled spirits are being bottled this year as last.

In April, according to the federal alcohol tax unit, total withdrawals of tax-paid beverage spirits were 8,700,000 gal., against 9,600,000 gal. in April a year ago. For the fiscal year to date (July, 1942, through April, 1943), withdrawals are 16,000,000 gal. ahead of the previous fiscal year.

The reason for the drought is that wholesalers, retailers, and consumers stocked up last year and increased sales 10% over 1941. Now the distillers are cutting supplies back to the "normal" 1941 level, and inventories are simultaneously running out. Distillers could easily sell 50% or 100% more whisky than they sold in 1941, but they can't afford to do so lest they sell themselves out of goods.

EXTRA CANDY FOR BONDS

Candy jobbers—long held to quota restrictions on their purchasing—came running when Schutter Candy Co. staged a series of dinner meetings recently where they could bid in war bonds for the privilege of purchasing extra-quota blocks of "Old Nick" and "Bit-O-Honey" bars at regular prices.

Thousands of cases of candy were auctioned—and delivered promptly from stocks in the banquet halls—in return for over \$10,000,000 in war bonds. Boston jobbers alone bought \$569,000 of bonds. The St. Louis and Baltimore auctions each opened with \$100,000 bids. To give all sizes of jobbers an equal chance, the lots of candy ranged from 1,000 boxes (24 bars each) down to 60 boxes. Pledges didn't count; money did. Proud of this contribution to the war bond drive, Schutter claims that nobody went home empty-handed.



FIRST IN PEACE!

The two-way road for your dollars!

IN WAR, your dollars can help deliver knockout blows to the Axis through War Bonds. Hit Hitler where it hurts, with block-busters. Beat him with "blitzkrieg" clear to Berlin. Answer his boasts with tanks. Give Uncle Sam a new order for War Bonds, and our armed forces will make the Nazi "new order" look like a 1914 model. And...

IN PEACE, when your War Bond money comes back again, you can put it to work for yourself. It can bring you the things you've been waiting for. The laboratories are full of new products, ready for the production line as soon as peace opens the floodgates.

That includes us. We've been in business for 67 years, but war work has taught us new production "wrinkles" at airplane speed. We have a few new things up our sleeve, too—and you'll be hearing about them when the lights go on again!

NOW		AFTER THE WAR
A \$1,000 WAR BOND PAYS FOR	A .50 cal. Browning Machine Gun	Down payment on a new delivery truck for your business
	Two .30 cal. Machine Guns	Redecorating your place of business
	13,636 Bullets for Garand Rifle	New fixtures for your office or store
	15 .45 automatic Pistols	

KEEP BUYING WAR BONDS

The **WILSON** Corporation
370 LEXINGTON AVENUE, NEW YORK CITY
ESTABLISHED 1876
BUILDERS OF ROLLING AND OVERHEAD DOORS IN STEEL AND WOOD

LABOR

Racial Ills Grow

Michigan is the focal point of conflict between whites and Negroes, but it's a nation-wide menace to industry.

The work stoppage at the Packard Motor Car Co. which halted production of Rolls Royce airplane engines and PT boats caused the second serious loss of war material attributable to race relations within ten days.

Packard workers walked out because three Negro employees had been promoted to more skilled jobs. Mobile (Ala.) shipyards were closed because Negroes were assigned to work with white welders, and fighting spread throughout the city.

• **Friction Elsewhere**—The demonstration at Packard in Detroit was followed by evidence of racial friction in Flint, Saginaw, Cleveland, and Chicago. Throughout the nation, but especially in Michigan, the racial problem is causing management considerable uneasiness.

The threat inherent in deteriorating race relations casts an ominous shadow over industrial operations. Like excessive absenteeism, explosive race relations result from the impact of war on the labor market. The manpower shortage is opening to the Negro plants and occupations which heretofore have been closed. Many white workers resent this and consider the Negro a threat to their wage standards, their job security, their health, and their social standing.

• **Klan Blamed**—According to officials of the United Automobile Workers, the Packard strike was incited by Ku Klux Klan agitators. It is known that such groups have been active in other conflicts. But the fact remains that agitators find many industrial employees, unaccustomed to working beside Negroes, who will lend a responsive ear.

A feeling on the part of whites that Negroes can be employed at lower wage rates accounts for considerable resentment at the employment of Negroes. To combat this, the National War Labor Board this week directed the Southport Petroleum Co., Texas City, Tex., to abolish the classifications "colored labor" and "white labor" and pay equal wages for equal work.

• **Gradual Assimilation**—Firms with a background of experience in such matters have found a program of gradual assimilation to be effective. The em-

ployer who is confronted with a labor shortage that he didn't foresee and who must hire a substantial number of Negroes in a comparatively short period is much closer to trouble than his colleague who prepared the way by a gradual introduction of Negro labor.

These same firms have found that an important prerequisite for the introduction of Negroes into the work force is the preparation of the supervisory staff. The handling of this job can be considerably facilitated if the company gets across the fact that its policies are firm and have positive government support through Executive Order 8802 (establishing fair employment practices and banning discrimination).

• **Spread Them Around**—Best results have accrued to programs that provide for widespread infiltration rather than the bunching of Negro employees in a single department.

Forthright handling of the issue can be made to pay dividends. In one small firm, the Faultless Pants Co., Buffalo, grumbling among employees finally induced the manager one day to shut off the power and call the workers together. He stated the policy of the company, took a firm stand, and explained the necessity of a democratic employment policy. His evident sincerity and determination were effective

in eliminating a condition which was becoming tense.

A somewhat similar approach has been that of Bell Aircraft. The director of industrial relations devotes a large part of his induction speech to new workers to the question of discrimination. Lockheed-Vega was aiming at the same result when it made an occasion of the induction of the 100th Negro employee at its plant by having Joe Louis speak at the ceremonies.

• **Negroes on Personnel Staffs**—Western Electric launched its Negro employment program by hiring a carefully selected, well-qualified, Negro girl to work in the employment office itself. Every employee saw an object lesson in Negroes and whites working together. The Ford Motor Co., Pennsylvania Coal Co., and Winchester Repeating Arms are three among a growing number of firms that have Negroes on the personnel staffs as experts on Negro problems.

Aside from its social effects, a policy of segregation, which seems to offer certain short-run advantages, can lead to much more trouble in the end. There has been the experience of numerous employers.

• **President's Committee**—The employer who is confronted by a racial problem can find out how other employers have dealt with similar matters by asking the help of the President's Committee on Fair Employment Practices with headquarters in Washington's Dept. of Labor Bldg.

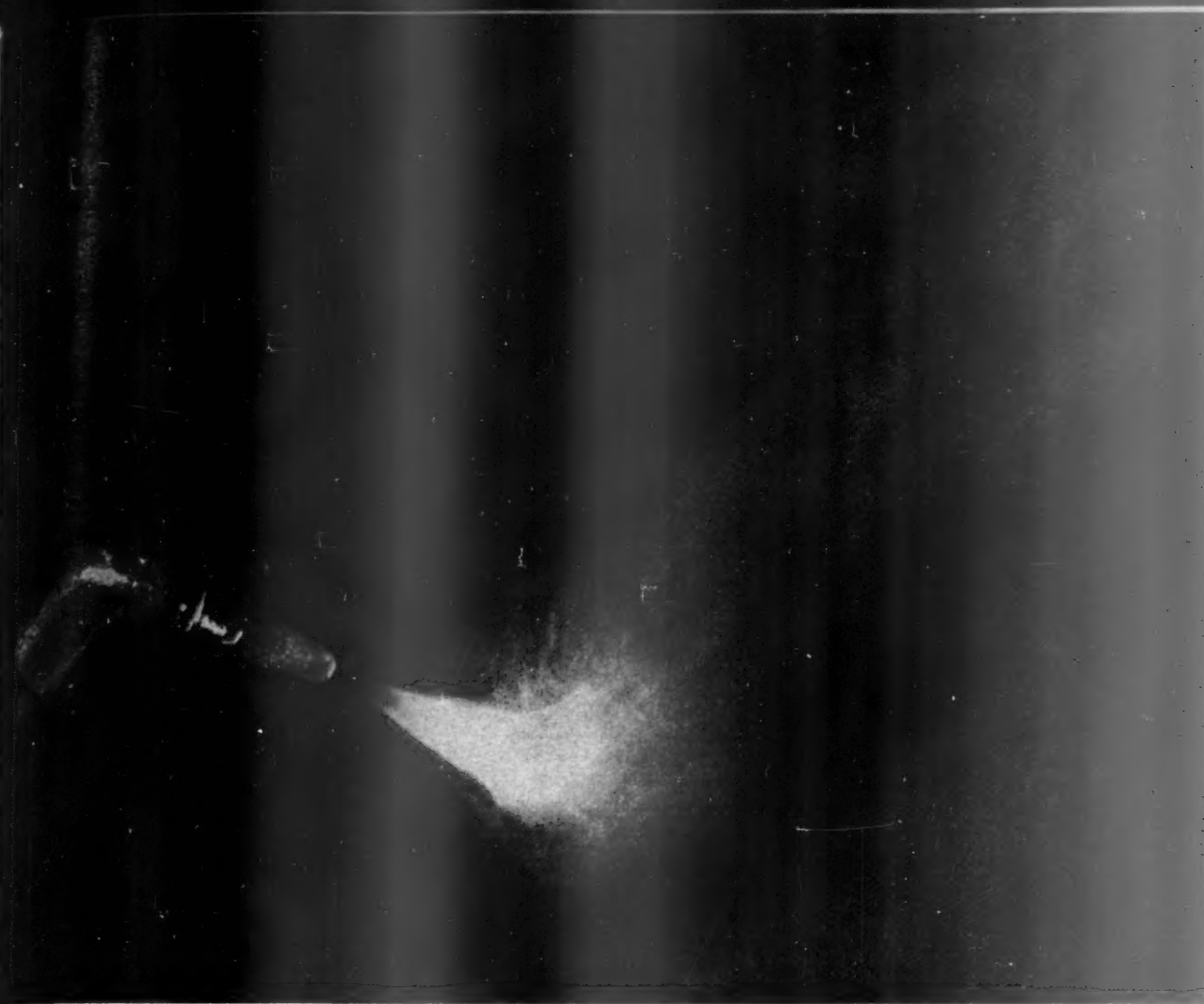


THEY HOLD THEIR GROUND

After conferring with President Roosevelt, members of the National War Labor Board's coal panel (left to right: William H. Davis and George W. Taylor, public; Reuben Robertson, industry; Wayne L. Morse and Frank

P. Graham, public; Van A. Bittner and Robert J. Watt, labor) were determined as ever to retain jurisdiction over the coal strike. Their spot in the center of the labor stage did not last very long, however, as Lewis announced a settlement with Pennsylvania operators (page 5).

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It Welds Steel... Yet Won't Ignite This Canvas!

This actual, unretouched photograph of a white-hot oxyacetylene torch flame billowing off a FIRE CHIEF Canvas welding curtain, tells more than a thousand words. Yet fire resistance is only part of the story.

This HOOPERWOOD "Engineered Canvas" is equally resistant to water, weather and mildew, greatly lengthening its life in service.

"Canvas Engineering" is opening up new broad fields of usefulness — offering advantages many products will benefit from when the peace is won and our entire production is no longer required by the armed forces.

To mention but a few — awnings that won't ignite from carelessly tossed cigarettes or rot

from mildew — special canvas truck covers that will outlast their predecessors several times over — canvas marine supplies that will help strike out the fear of fire on shipboard — aircraft canvas fabrics that repel gasoline and oil.

These and many other applications of "HOOPERWOOD-Engineered" fabrics for Business and Industry will be waiting for you when conditions return to normal.

WM. E. HOOPER & SONS CO.

New York **PHILADELPHIA** Chicago
Mills: **WOODBERRY, BALTIMORE, MD.**

Since 1800 (through six wars) the HOOPER name has symbolized highest quality in Cotton Duck and other Heavy Cotton Fabrics, Paper Mill Dryer Fells, Filter Cloth, Rope, Sash Cord

Fire-Chief Finished

HOOPERWOOD COTTON DUCK



POWER TO WIN

Couriers of the air direct the striking power of our fighters in the field and often under the very noses of the enemy. Most of these nimble, undaunted liaison planes are dependably powered with Continental Red Seal Engines. Continental power—the Power to Win—is constantly serving our forces in many capacities on land, at sea, and in the air.



Awarded to the Detroit and Muskegon Plants of Continental Motors Corporation for High Achievement.

Your Dollars Are Power, Too!
... Buy War Bonds



Continental Motors Corporation
MUSKEGON, MICHIGAN

It's Up to NWLB

Panel O. K.'s three most important demands of Chrysler workers, and board's decision will affect G. M. case.

The National War Labor Board on its desk for study this week the demerit-laden recommendations of its panel in the dispute involving the Chrysler Corp. and C.I.O.'s United Automobile Workers (BW—May 29 '43, p. 102).

● **Strike Over Delays**—The board rejected the Chrysler dispute last Dec. and the slowness in reaching a decision on the issues presented was responsible for the recent walkout of approximately 25,000 Chrysler employees in Detroit. Altogether, 52 issues were involved in the Chrysler case, the three major being arbitration, union security, and the checkoff.

On these, the panel's public and private majority gave U.A.W. a clear victory. It recommended the appointing of a permanent impartial umpire to dispose of unsettled grievances and the granting of a standard maintenance-of-membership clause and checkoff.

● **Both Sides Criticized**—The panel's recommendations were contained in a 55-page report from which Carl Taber, Lansing (Mich.) attorney who as an industry member, dissented. The company and union came in for sharp rebukes from the panel for attitudes played in collective bargaining negotiations.

Most of the issues, the panel felt, were "trivial and should not have been brought up for review by the NWLB for a decision." Most of the contract changes demanded by the union were denied, and the panel pointedly told U.A.W. that "an unsatisfactory bargaining situation cannot be corrected by adding detailed, regulative provisions to the agreement."

● **Precedents Involved**—But, lest Chrysler conclude that the panel was convinced the company's hands were tied, the report hastened to add that it wanted it understood "that it holds the corporation equally to blame, that the minor, proposed contract changes may be settled by this board, and that the union feels compelled to make such a large number of demands."

In recommending the appointment of an impartial umpire, the panel wrote a practice already in effect at Ford and General Motors. But U.A.W. has a union shop and checkoff at Ford where it operates without maintenance membership and a checkoff at G.M. servers are therefore inclined to believe that NWLB will approve the recommendations of its Chrysler panel and thus have a precedent for settling

GM-U.A.W. dispute which is also the board's hands.

Recurrent Strikes—Like their colleague who sat on the panel, industry members of NWLB are expected to report from a union maintenance grant. They will cite the union's strike record as evidence of its irresponsibility. On this score the panel found that from Nov. 30, 1939, to Dec. 23, 1941, there was a total of 60 strikes; from Dec. 23, 1941, to Jan. 8, 1943, there was a total of 66. In addition, there was last week's major stoppage.

The panel's record also shows that from Dec. 1, 1939, to Nov. 30, 1942, 2,152 man-hours of time were consumed by union stewards and committeemen in investigating grievances and bargaining with company representatives at a total cost estimated by the company at \$742,000.

Whole Industry Watches—The Chrysler case is crucial not only because of employees' readiness to strike but also because it is almost certain to set precedents for labor contract terms throughout the automobile industry.

ABSENTEEISM DECLINES

Reporting on absentee rates for the second time since it began a national industrial survey, the Bureau of Labor Statistics has found a drop to 6.3% for April from 6.6% in March. Some 3,900 establishments employing 3,500,000 workers,

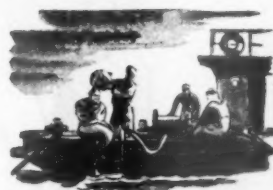


TALENT IN THE SHOPS

because many entertainers find war work more profitable than stage, screen, and radio, top-notch plant shows can now be drummed up at the drop of a hat. In Camden, N. J., more than 100 RCA Victor employees put on a two-hour musical for coworkers with Helen Collings (above), research worker, as ballerina. The show played week to capacity audiences.

AN URGENT CALL to expedite a war order had come to an important maker of diving equipment. Despite heroic measures in his own plant—one "bottleneck" stood in the way: delivery of the special telephone equipment by which the diver talks to the deck crew was 60 days off at best!

THEN SOMEONE SAID: "Let's try GRAYBAR." A GRAYBAR Specialist on telephone equipment took over the problem. If permission could be obtained to make a few modifications, telephone apparatus already in GRAYBAR's local stocks could be furnished without delay. Once it was shown that the changes meant no sacrifice in safety, the modifications were allowed, and the shipment went through at once.



WELL WITHIN THE TIME LIMIT, the rush order of diving equipment was completed and dispatched. Somewhere, at a secret location, a diver was able to keep his date, reliably equipped for communication . . . via GRAYBAR.

IF YOUR OWN ORDERS for war equipment involve communication, lighting, power supply or other electrical facilities, GRAYBAR's service as a Procurement Advisor may help you to "keep the dates" that can mean life or death to someone out at the front. In addition to electrical plant equipment, GRAYBAR now offers a special electrical supply service on marine and aircraft construction materials.

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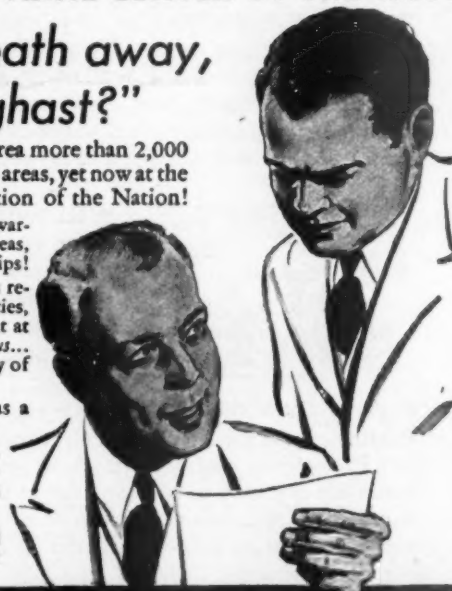
"W-e-l-l, Mr. Edwards, we're known as a forward-looking concern..."

"I'm a step ahead of you, Tillinghast. Here's my airmail letter asking for information. We're going to start planning a postwar factory out there."

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widest sample to date, reported to B... Although they are not inclined to understate the effect of a national absentee campaign, government analysts attribute the improvement in attendance to better weather conditions, noting that in shipbuilding, a great deal of which is open-air work, the absence rate for April was 7.7% against March's 8.7%.

The reported rates are based on whole-day or whole-shift absences and include time lost for any cause whether excused or unexcused. In the manufacturing group, the lowest averages, 2.5% and 3.5% respectively, were reported by the petroleum refining and steel industries, in which relatively short hours of work are still common. Shipbuilding still shows the highest rate.

The majority of the other 27 industries covered by the bureau's survey show absence rates ranging between 5% and 6%.

Wildcat Tamer?

New approach tried by Army and Navy at Gary use personal wire, eloquence, and individual appeal to strikers.

What looked like a new weapon for ending wildcat work stoppages in war plants was tried recently by the Army and Navy at Gary, Ind. Production was resumed on Carnegie-Illinois Steel Corp.'s idle No. 8 furnace almost immediately, and observers suspect that the new technique brought about the happy ending.

● **New Furnace Shunned**—Trouble started May 14 when the workers in No. 5 openhearth continued working seven old furnaces but refused to charge material into the new No. 8 because of dissatisfaction with the wage adjustment for the work added by the extra unit. Upshot was a production loss of 340 tons a day of special torpedo and armorplate steel for ten consecutive days.

Then the armed services stepped in. Telegrams from the Army and Navy to 300 members of the crew instructed them to attend one of two meetings to be held at 7 a.m. and 8 a.m., timed to catch the change of shifts.

● **Show of Hands Asked**—About 17 workers came to the two meetings, listened quietly and without applause to a Navy lieutenant commander and an Army lieutenant colonel exhorting them to return to work. Scarcely half a dozen indicated by a show of hands that they would pledge all-out production, but no hands were raised when the officers asked who would refuse to pledge it.

After the second session, the union



Don't tell this to the Marines!

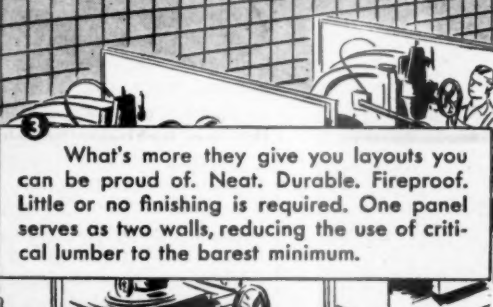
ANOTHER WAY NATIONAL GYPSUM IS HELPING IN THE WAR EFFORT



1 If you're one of those companies that need new office or factory layouts fast to make good on orders, listen! You don't have to tell it to the Marines—or even to Washington for action. Here's how you can do it quick and make good on your promises...



2 On many jobs today regular building methods are out. They take too much time and use material that you can't get. But National's new Gold Bond Gypsum Solid Partition panels are readily available, go up practically as quick as you can say "Sink a Jap" and make sturdy practical walls that can be moved around later to your heart's content.



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4 You can use handy Gold Bond Solid Partition Panels wherever you need to cut up rooms to advantage, in plant, factory, store, office or home. They don't contain an ounce of war essential material. They can be put up quickly by any carpenter.



5 These panels are just one of three amazing new wartime products developed by Gold Bond to provide a quick, low-cost, permanent answer now for exterior walls, roof planking and interior partitions. For details, see your local Gold Bond dealer. Or write National Gypsum Company, Buffalo, New York.

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formed military officers, district officers of the C.I.O. steelworkers, and representatives of WPB and management went to the furnaces to make personal requests that those on duty charge No. 8 which had been refired over the week end. Another furnace in No. 5 open hearth had been shut down during the week end for repairs. So the management charged No. 8 and agreed to continue until the other furnace was repaired.

• **Services Credited**—Several days before when this repair was completed, it was developed that credit for resumption of No. 8 belongs to the Army-Navy meeting. The boys continued operating No. 8 when the repaired furnace was back into action.

WMC Challenge

Rhode Island industries unite against labor-stringency label and offer a plan which may put state back in Group III.

Restoration of the Providence area encompassing a major portion of Rhode Island's industry, to the War Manpower Commission's group classification I is the object of concerted effort. Labor organizations and industry alike have protested WMC's placing the Providence area in Group II (BW—Jun. 5, p90), barring manufacturers from receiving new contracts that can be placed in an area with a less critical labor shortage. Group II identifies an area of labor stringency where shortages may be expected in six months.

• **Seek Gentlemen's Agreement**—William L. Connolly, state Director of Labor and president of the Rhode Island branch of the American Federation of Labor, challenged WMC's decision. Edward F. Walker, executive secretary of the Rhode Island Textile Assn., declared the labor situation did not warrant such action. A concrete proposal has been advanced by Associated Industries of Rhode Island to marshal corroborative evidence.

The proposal contemplates a gentlemen's agreement among all manufacturers in the hiring of employees so that labor turnover will be reduced, thus influencing personnel managers to lower their estimates of future personnel needs. Estimates of employment managers submitted to the U. S. Employment Service last March loomed large in WMC's decision to reclassify the Providence area from Group III to Group II. Nearly 125 manufacturing firms in the Greater Providence area have signified their desire to enter into the "gentleman's agreement" proposed by Associated Industries.

• **Certificate Required**—Manufacturers would agree not to hire a man unless

Business Week • June 12, 1945

he presented a statement of availability signed by the USES and his former employer. At present the statement of availability is required only when a worker leaves one war job for another at higher pay.

WMC regional officials have pledged cooperation.

NO LOAFING IN CINCINNATI

Greater Cincinnati war plant executives, persuaded under the stress of a sultry summer to knock off for an afternoon of golf, soon may face challenging signs like these in the clubhouse:

Is this trip around the greens necessary? Isn't there something for you to do at the office?

Streetcar riders and autoists will read billboards asking:

Have a good time, but show up at work tomorrow.

Don't be an absentee.

And the housewife, ironing at home, will hear from the radio:

Get the man of your home to work tomorrow.

Night shift workers must be on time at the plant. You, Mrs. Housewife, can help them do that.

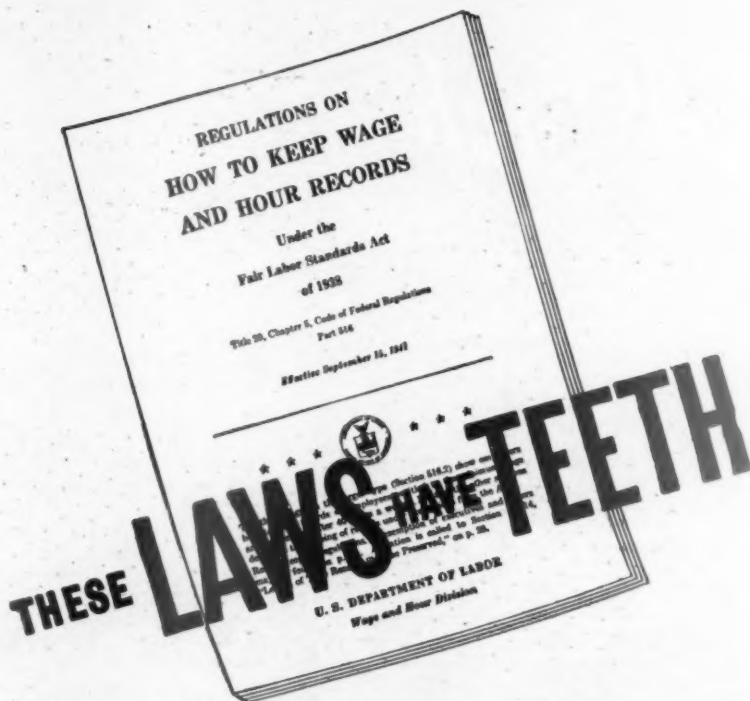
All this will be a part of a rip-snorting, metropolitan campaign against "illegitimate absenteeism" to be launched the end of this month.

The area's War Manpower Commission's subcommittee on absenteeism is behind the drive. Hudson Biery, the Cincinnati Street Railway Co.'s veteran public relations and advertising counselor, suggested handling the campaign on an intercommunity basis, like the Community Chest drive, and the pattern for the program was thus set.

HATTERS GET VACATIONS

What is claimed to be the first vacation plan for production employees of the men's hat industry has been approved by the National War Labor Board for inclusion in a new contract between the John B. Stetson Co. of Philadelphia and A.F.L.'s United Hat, Cap & Millinery Workers. It will provide one week's time off with pay. The same contract carries another clause without precedent in the needle trades: It is to remain in force for the duration of the war and for six months thereafter. Like most labor agreements, needle industry contracts usually are written to expire in a year.

Stetson is considered a model employer, according to Max Zaritsky, president of the hatters' union. After 71 years of operation under an open-shop policy, Stetson signed an agreement with the hatters in 1936. Since that time, there has not been an hour's work interruption due to labor problems. Stetson has had a labor-management committee since long before WPB sponsored such agencies.

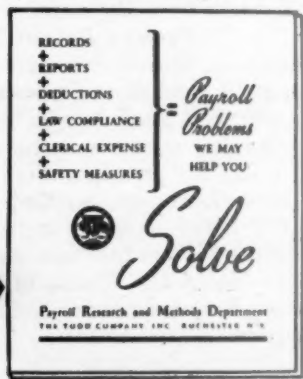


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DEPARTMENT BW-6

MILWAUKEE, WISCONSIN



FINANCE

Rail Fight Goes On

Stockholders, defeated in high court, look to Congress to upset ICC's depression-proof carrier reorganizations.

Stockholders and junior creditors of bankrupt railroads have lost every round in their long fight against the Interstate Commerce Commission and its plans for depression-proof reorganization, but they still aren't ready to quit. Instead, they trooped eagerly to Washington this week as a subcommittee of the House Judiciary Committee opened hearings on a bill to overhaul the bankruptcy law.

• **The Precedents**—Now that the Supreme Court has slammed the door on further legal action, junior security holders are pinning their hopes on Congress. In ruling on reorganization plans for the Western Pacific and the Chicago, Milwaukee, St. Paul & Pacific, the court backed up the ICC's policy of basing new capitalization on prewar earnings (BW—Mar. 20 '43, p. 106). If that decision stands, final reorganization of most Class I roads now in bankruptcy will leave no place at all for common stockholders and little enough for preferred stockholders and junior creditors.

What the ever-hopeful stockholders want now is an amendment to the bankruptcy law that would cut them in for a share in the new companies. This is the purpose of the bill sponsored by Rep. Sam Hobbs which the bankruptcy subcommittee took up this week.

• **New Wrinkles**—Although the Hobbs bill says nothing about stockholders or junior creditors, it would provide for them indirectly by writing a couple of new restrictions into Section 77 of the bankruptcy law. First, it would provide that capitalization of a reorganized road should be at least as much as the investment in the property or the valuation determined by the ICC for rate-making purposes. On top of that, it would require the federal court that reviewed the plan to take account of present earnings as well as the past income record.

Either of these provisions would kick the props from under the ICC and force it to make a place for junior interests. The commission has gone on the assumption that the important thing in determining sound capitalization is not valuation but ability to meet fixed charges, that is, earning power. Following this rule, the ICC has set the maximum new capitalization for many bankrupt roads well below their official valuation. Moreover, it has flatly re-



THRIFTY FITA-FITA

Even natives of Pago Pago know the meaning of payroll war bond pledges. Skirted members of Samoa's Fita-Fita

guard (Navy regulars) really serve at home, but they're overseas in the eyes of the Navy—so they get overseas pay. With plenty to spare, the guards put 50% of their pay into bonds.

refused to take account of soaring wartime earnings, because it wants the reorganized companies to be prepared for the worst.

• **Present Methods**—This question of determining the permissible capitalization is the center of the whole reorganization fight, for it is the point where the junior interests get squeezed out. In Section 77 reorganizations, each class of creditors has to get full satisfaction—on paper—before subordinate interests come in for anything.

The regular procedure is to determine the total capitalization of the new company and then go down the line allocating new securities to the old creditors in order of priority. Since the new capitalization is less than the old one, the bottom tiers get left out. Hence, the reorganization plans now pending make no provision for stockholders, and most of them give only a slim allowance to subordinate bondholders.

• **Grounds for Dispute**—Naturally, the bigger the capitalization of the new company, the better the chance that something will be left for the boys at the end of the line. That is why all the arguments over reorganization revolve around the question of how big a capital structure the road can support.

In the end, it all boils down to the question of estimating future earnings of the roads. If railroads after the war are going to hit another slump like the 'thirties, even the most hardboiled reorganization plans won't leave them much margin of safety. If they can hold part

of their wartime gains, most of them will earn enough to give the old common and preferred a reasonable value.

• **Margin of Safety**—From the beginning, the ICC has held out for reorganization plans that would stand up through any depression that might set in. Before the war, it used as rule of thumb the principle that fixed charges under a plan should have been earned at least one and a half times in the preceding six years. Stockholders protested that the lean years of the 'thirties gave an abnormally low base, but the commission stuck by its guns.

When war traffic began to boost rail earnings, the ICC refused to modify its estimates of long-term earning power. It regards the war boom as just so much plush for the roads, not as a basic change in their position.

• **Optimistic Viewpoint**—On the other side of the fence, stockholders argue that the roads will never see another slump like the ten years before the war. They think at least part of recent earnings represent a permanent gain that should be figured into the capital base (BW—Jan. 2 '43, p66).

The amounts at stake in this fight are big enough to make the stockholders keep trying no matter how many times they lose. Several of the bankrupt roads are now earning ten times their prewar average. For others, the gain is even greater. The North Western had \$26,405,000 available for fixed charges last year, which compares with \$1,274,000 in 1938. The Milwaukee showed \$35,-

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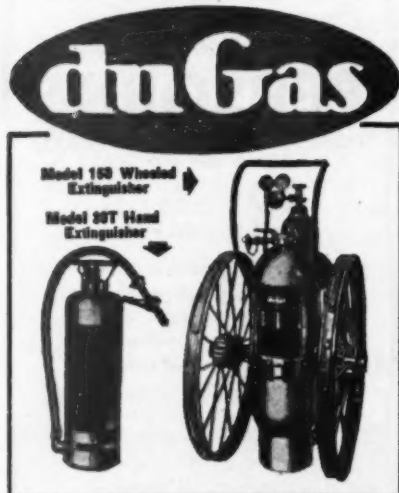


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Somewhere in the tropics... somewhere in the arctic... at battle stations all over the globe, our fighting men are ready to meet and defeat an enemy that's just as treacherous as the Axis. That enemy is fire. And it's an enemy that's being conquered quickly, decisively, with duGas fire-fighting equipment.

DuGas means quick blackouts to fierce fires, for duGas compound releases huge blankets of fire-smothering gases that hurt nothing but flames. And duGas is *always* ready to "fire" at fire... won't harden, freeze, evaporate or go stale.

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THE MARKETS

It's a rare day when Wall Streeters can't think of something to fret about, and this week they had the invasion jitters. Monday's soft market, for example, was a reflection of this sentiment. Traders were sitting around and wondering, "Suppose we try to land on the continent and don't make a go of it?"

● **Buyers Turn Cautious**—Yet such weakness in prices as appeared could hardly be ascribed so much to worried selling as to paucity of buyers. Volume tended to dry up on the dips, and the market rallied fairly smartly whenever a few buying orders put in their appearance.

There are, of course, several technical factors in the present market that keep bearishly inclined speculators believing that the price structure is none too sturdy. First and foremost, this 13-month-old bull market at no time has had a dip of sufficient proportions to chase out the pikers. A shorter-range influence, but one that is potent with chart readers, is the backwardness of the rail list (and a lot of analysts will tell you that the carrier shares have been badly overbought, especially the low-priced babies); the rail averages have been on a plateau for about two months.

● **Rising Against the Trend**—Invasion worries are, pretty obviously, nothing more than a superficial manifestation. Even in the sloppiest of recent sessions, there have been notable points of strength. Thus, of 920 individual issues in which there were transactions on Monday, 101 hit new highs for the year—not quite so many new tops as in the sessions immediately preceding, to be sure, but a pretty striking number for a day that saw a drop of very nearly 1½ points in the industrial averages.

Further indication that most people aren't worried about the United Nations

failing to win the war—even that some may expect a relatively quick victory—in the action of the so-called peace stocks. These shares continue to enjoy the marked degree of favor apparent for some time (BW—Apr. 3 '43, p. 15).

● **Some Samples**—Among the 101 issues that swam against the current to reach 1943 highs on Monday were many that are having their troubles now but which look forward to at least a moderate pick-up just as soon as the war ends. Take for example Coca-Cola which, with other beverage companies, has sugar-ration troubles; Commercial Credit whose juiciest business was knocked into a cocked hat when manufacture of automobiles ceased; and National Distillers which has had to switch off liquor to distill the alcohol needed for war.

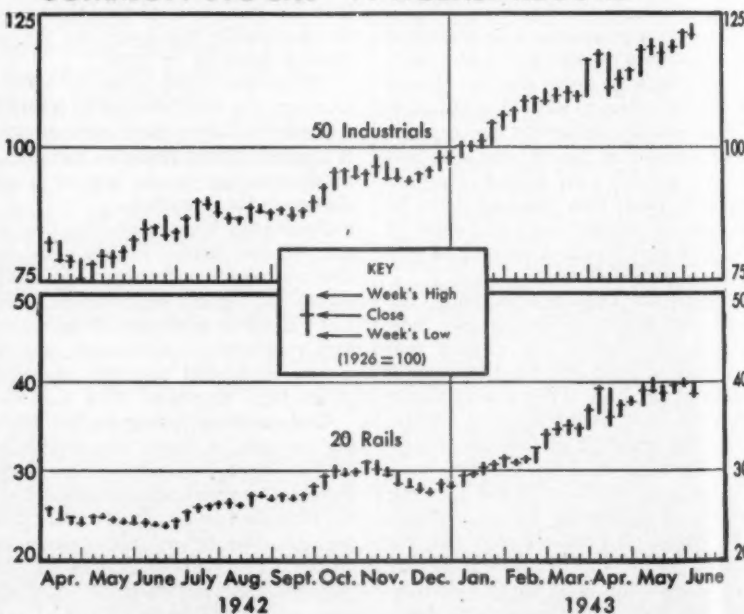
Also among those to make new highs on that single day was quite a list of prominent merchandisers, all of which must have some gaping holes in their shelf stocks: Associated Dry Goods, Bloomingdale, Federated Department Stores, First National Stores, Marshall Field, McCrory Stores, McLellan Stores, and J. J. Newberry.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial ...	120.8	121.6	118.7	84.8
Railroad	38.6	39.9	39.2	24.2
Utility	47.2	47.6	47.6	31.9
Bonds				
Industrial ...	116.5	116.7	116.3	107.4
Railroad	98.5	100.2	100.2	83.7
Utility	114.4	114.2	113.4	102.8
U. S. Govt. ...	112.7	112.4	111.7	111.0

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

441,000 against \$6,102,000, and the Rock Island chalked up \$35,963,000 against \$2,934,000.

• **Cash Changes the Case**—In one or two cases, wartime earnings already have made their mark indirectly on reorganization plans. Where roads have piled up heavy cash balances, it is no longer necessary to issue new securities to get working capital, and to this extent, junior creditors get an unexpected bonus. Last week, for instance, the federal court at Chicago sent the Rock Island plan back to the ICC. The main objection was that it called for issuing \$11,000,000 worth of bonds for cash when the road now has about \$60,000,000 cash in its Treasury.

Planes for All

Finance company bought by Lockheed to provide postwar credit to individuals who are in market for aircraft.

"While all our efforts and facilities currently are dedicated to the single purpose of building airplanes to help win the war, we must look forward to the day when our industry will have full responsibilities to our nation, society, and economy, with financing facilities available when peace returns.

"We shall be able to facilitate wider use of airplanes, enabling our people to participate in the opportunities of the coming age of air."

• **Planes for the Public**—With that mouth-filling statement, Robert E. Gross, president of Lockheed Aircraft Corp., announced that his company had acquired from Transamerica Corp. the majority interest in Pacific Finance Corp. of California. Thus Lockheed prepared for a postwar era when the government will no longer buy all the airplanes it can make; Pacific Finance will finance the purchase of planes by the public on "easy terms." The finance company will be to Lockheed what G.M.A.C. is to General Motors.

The purchase of a finance company by a manufacturing concern, incidentally, reverses a widely noted recent trend, that of instalment firms buying up manufacturers to employ capital released by the dwindling volume of loan business (BW—Jun. 5'43, p105).

A special meeting of Pacific Finance's stockholders has been called for June 23 to make callable the series A and C preferred. Lockheed is reported to have paid Transamerica \$15.25 a share for its 381,205 shares, and it has been indicated that minority stockholders will be offered a similar price.

• **Marking Time Now**—Until the war ends, Lockheed's newly acquired subsidiary will continue to concentrate on



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KEYSTONE Wire

Husky wire cables slung from giant cranes lay the first keel plates of the Victory ships. Other heavy duty cables "snub" the momentum of the rapidly completed ships as they slide down the ways. And between these stages literally miles of wire cable carry plates, fittings and sub-assemblies to the right spots, in a hurry.

This is just one place where many tons of Keystone's war-time production is going. And too . . . planes, tanks, guns and ammunition place upon us heavy calls for materials.

Keystone wire and rods for civilian products must come second to these demands—until Victory.

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PEORIA ILLINOIS

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what's left of its major source of business—financing the inventories of automobile dealers. So Lockheed, often rumored to be considering the manufacture of an eight-cylinder car after the war, is technically "in the automobile business" already.

One of the oldest finance corporations on the Coast, Pacific Finance until recent years participated in the furniture and personal loan business through its subsidiary, Consumers Credit Co., and also made direct automobile loans to consumers through branch offices located in California and Oregon.

● **Early Operations**—Its operations date back to the period before banks provided facilities for automobile financing. In those days, Pacific Finance assumed the first risk on automobile paper, then sold it to the banks, most of all to the Bank of America which secured a minority interest in the firm. When Bank of America introduced its own automobile financing plan (Timeplan), it was in competition with itself.

So when Transamerica Corp. last year acquired majority control of Pacific Finance's common stock, Pacific Finance's receivables held in its automobile sales finance companies in California and Oregon were sold to Bank of America and to the First National Bank of Portland, respectively. At about the same time, the furniture and personal loan subsidiary was sold to Beneficial Industrial Loan Corp.

● **Amount of Business**—Pacific Finance's current volume of loans and discounts runs about \$14,000,000. Present staff, management, and board of directors are continuing to operate the company although five Lockheed faces turned up on the new board of directors.

SUGAR PROSPECTS POORER

Things aren't looking any better in sugar—at least not in the western beet fields. Company executives now figure that the late, rainy season has combined with labor shortage and inability of farmers to get machinery to cause a cut of at least 40% in planting compared to 1942 acreage. A few weeks back the prospect was for a reduction of about 30% (BW—Apr. 24 '43, p. 56). The big beet sugar companies also are convinced that operations under price ceilings have made this crop less attractive to farmers.

The silver lining, if any, probably is for offshore suppliers like Cuba. With shipping at a premium, the tendency is to import only what we have to. Hence a short beet crop should be reflected in larger imports later this year. This probably is a factor in Wall Street's recent interest in stocks of the Cuban producers, although most speculators are thinking also of fairly rosy peacetime prospects for the island's sugar mills.

THE TRADING POST

Planning and Research

At this time, when so many business men are trying to foresee the conditions that will confront their businesses after the war, we hear a lot about planning and research.

Unfortunately, these words don't mean the same things to everybody. Sometimes they seem to carry an air of mystery that scares off some men from doing what they can and should do to prepare for the changes to come.

It is worthwhile, then, to emphasize that postwar planning need not be cosmic in scope or microscopic in detail. It should fit the needs of the business it is designed to serve—nothing more or less. And research need not involve atom-smashing or revolutionary changes in materials, products or methods. It merely tries to find out what the business needs to improve its market position and its operating efficiency.

* * *

I am reminded of all this by some remarks offered by W. C. Carter, president of the Link-Belt Co., at the annual meeting of his shareholders.

"We don't have any fenced-in, solid-walled, air-conditioned building, inhabited by Ph.D.'s with Malcolm Mitt beards," said Mr. Carter, "that we turn to and say, 'this is our Research Department.'"

"All of us are searchers, and when we miss the boat—as we frequently do—we immediately become re-searchers."

"Without intending to indulge in too much whimsy, we do have many members more nearly like Dick Tracy who go about correcting what is evil and striving to improve what is good."

"These members have one standard which they are applying to our products and to our designs, for the future. It is a simple standard and can be simply stated. It is to make the product lighter, stronger, better, cheaper."

"To reach one of these objectives is an accomplishment and when it happens that there is an instance of achieving all four of them, they have attained for that product a temporary millenium."

"This continual planning is not only on products. It involves organization, plants, and equipment as well."

* * *

Much of the mystery about postwar planning will be dissipated if we take to heart this conception that planning and research are but continuing functions of management in any business, at any time, and under any conditions. For a primary concern of any efficient management is to know all there is

to know about its products, market and operation. It takes research to find that out. Another major function of management is to run the business each day, and month, and year with due regard to where it is likely to be tomorrow, next month, and next year. That, of course, is planning but, ordinarily, we just call it good management.

In normal times, the capable executive does this instinctively and, for the most part, without great ado. That is because conditions and trends change gradually and according to rather clearly marked signs.

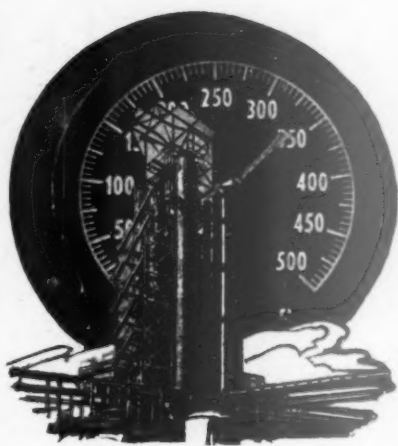
The very large or complicated business, to be sure, approaches such problems more consciously. It must plan farther ahead, it must direct its processes of research toward more precise determination of many more factors. To stop, reverse, or maneuver the Queen Elizabeth is a more involved technical process than to handle a 50-ft. motor launch. But for all of that, the principles of seamanship are the same.

But however easily the ordinary business may carry on its planning and research in normal times, we know that developments of the last decade, especially of the war years, will make more changes, more rapid changes, and more basic changes in the operating conditions of many companies than they ever experienced in normal times. That is why we all have become so aware of research and planning. That is why even the small business cannot afford to leave its destinies to the hazards of normal day-to-day planning.

* * *

The men responsible for management know they are in for abrupt changes at the end of the war. Most of them know, too, that they will not be able to turn back overnight to find their accustomed places in the postwar world. So they are trying to outguess their futures, not on the basis of projecting present policies and practices, not even on that of picking up where they left off when the war hit them. They know that their postwar progress will depend not on such projections, but rather upon their ability to discern new conditions accurately and to appraise them wisely.

In other words, every business concern, however well established, will be very much like a new business starting afresh in a strange field. Under such conditions, everyone recognizes the necessity for research and planning. There is no mystery to that. It will help, therefore, if we look upon our postwar planning and research as a simple, normal process stepped up to meet complicated and abnormal times. W.C.



Today's rubber "tree"

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THE TREND

CONTRACT WINDUP—PRACTICE SESSION

Current talk of 30- to 90-day settlement of war contracts, after the war, sounds good to everybody. To war contractors who have experienced partial cancellations, cutbacks, and complete cancellations in the last few weeks, it sounds too good to be true. If the average postwar settlement is as prompt as six months, said one, "it will be a miracle."

• **Good, sound accounting is the best insurance for prompt settlement**, according to Col. H. M. Reedall, chief of the Cleveland Ordnance District, one of the field officers who have started to get hold of this thorny cancellation problem at its roots.

Auditors are so scarce that it is physically impossible for the government to hire enough of them to do a complete job on any contract, much less to do it in a hurry. From necessity, audits are most likely to be of the spot-checking type approved in commercial practice. And if the government auditor finds the records faulty or inadequate, there is nothing the contracting officer can do to speed the final settlement.

Col. Reedall cites a \$1,500,000 contract in his district, canceled when partially fulfilled. Claims against the government amounted to about \$450,000. There were 60 subcontractors. A settlement had to be negotiated with each by the prime contractor—one of the subs was in Houston, Tex.—and approved by Cleveland Ordnance. Yet, final settlement was approved only 30 days after notice of cancellation. The explanation given for this unusual speed record is that the contractor involved was unusually "accounting minded."

• **To the implication that all companies aren't accounting minded**, another contractor in the same district remarked that, in order to have all the records the Army would need for quick settlement, "you'd need three auditors stationed at every machine tool."

This contractor points out that, in dealing with the government, a private individual or company executive is constantly reminded that he is on the short end of the balance. Suppose he spends \$1,000,000 or so of his company's money on new equipment in response to a telephoned order without waiting for authority on paper, then ships finished goods on the same kind of intangible authority from coast to coast. Then suppose he puts on a production drive and boosts production 10%. And then suppose that, at this point, along comes a cutback order reducing the schedule 50%.

In such a situation, no contractor can stop 50% of his operations in mid-air, much less the operations of his subcontractors. But he has to do the best he can, and try to figure the score in such a way that he can get out with a whole skin.

War contractors feel that they are pretty much at the mercy of contracting officers, without appeal except to

the Secretary of War or Navy, as the case may be. After a contract has been negotiated, it is subject to renegotiation, engineering changes—one item on record had 273 engineering changes, each of which required detailed paper work that amounted to a partial cancellation—cutbacks, and partial, or final cancellation. In each instance, the contracting officer is boss. Prime contractors are responsible for settling with their subcontractors and are practically required to maintain a constant relationship, percentagewise, with their subs during the life of a contract. In some cases, the prime contractors feel their responsibilities are not implemented with authority; the contracting officer, who doesn't deal with the subs, nevertheless has to approve each settlement with them.

• **The few contract cancellations now coming through**—there have been only 20 final cancellations, for example, in the Cleveland Ordnance District, of which half a dozen have reached final settlement—should help both contracting officers and manufacturers to develop techniques and skills in handling situations which later will be duplicated many times over.

Contracts aren't being canceled for practice, of course, but the practice is important. It took Army Ordnance more than the 20 years between the wars to develop the procurement techniques now in use, and its officers point out that it may take a few more years to bring stop orders to the same relative level of efficiency.

Aside from natural disagreements on values, use of real estate, and the like, there are fundamental considerations that tend to block quick action in dollars and cents agreements after cancellation.

Contracting officers are old enough to remember the investigations into war contracts that followed the last war. Fear of investigation will be more immediate after the war than it is now, and postwar cancellation settlements will be handled even more deliberately and cautiously.

Postwar accountants will have in mind the contracting officer's fear of investigation, plus the realization that if they declare lightning war on their own personal sectors of paper work, they'll soon work themselves out of a job. For these and related reasons, the pace of government always is ponderous.

If any contractor thinks he can change that pace by arguing that he'll go broke unless he collects promptly from Uncle Sam, he is building up toward a big disappointment. His best hope is to get himself and the government thinking about the problems now, so that the job of contract settlement can be speeded by the development of a sound body of principles by which all can be guided.

The Editors of Business Week

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